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ABSTRACT

As mandated by state finance legislation of 1983, this report provides a plan for differential funding for California's community college districts, and presents the results of a study of differential funding. Part 1 of the report presents the differential funding plan, including a summary of the study and its findings and the basic principles and elements of the proposed funding plan. Part 2, divided into six chapters, focuses on the differential funding study. Chapter 1 presents background to community college finances, including a history of funding in the system, analyses of the impacts of changing funding policy and reduced funding levels, and a discussion of the expectations of differential funding. After chapter 2 reviews the study plan and procedures, chapter 3 considers differential cost funding in terms of state and local district interests and advantages and disadvantages. In chapter 4, the data needs of the funding mechanism are considered with regard to available data and plans for developing needed data. Chapter 5 provides an analysis of a differential cost funding approach for the community colleges, considering elements such as support categories, workload measures, support levels, and impact on individual districts. Finally, chapter 6 offers a plan for implementation, which identifies elements of the plan, suggests a schedule, estimates costs, and considers the legislative authorization needed. Appendices include a summary and analysis of data. (LAL)

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CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

FIELD REPORT #3

October, 1984

Dr. Glenn G. Gooder
Consultant

JC 840 537

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California Community Colleges
Differential Funding Study

Field Report #3
October, 1984

In June of 1984, Field Report #1 was distributed to describe plans and activities related to the Differential Funding Study mandated by SB 851. Field Report #2, distributed in August, 1984, described the information being analyzed and provided an update of the study.

This status report, Field Report #3, is a tentative, working draft of study findings and recommendations. Revision of the study report continues. The Board of Governors' Budget, Finance and Legislation Committee will review the draft on October 25. The Study Advisory Committee will meet and review the draft on November 5. After those reviews, the final report will be prepared for presentation to the Board of Governors and to the Legislature in December of 1984.

Questions or suggestions regarding the study may be directed to Dr. Glenn G. Gooder, Consultant, California Community Colleges, 1107 Ninth Street, Suite 500, Sacramento, California 95814. Or, interested persons may wish to attend the meeting of the Board of Governors' Committee on October 25 in Long Beach.

CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

INTRODUCTION

This report to the Legislature is submitted in response to a directive contained in SB 851, Alquist (Chapter 565, Statutes of 1983) which reads as follows:

> SEC. 6. (a) It is the intent of the Legislature to fund community colleges in a manner which better reflects the cost of delivering instruction and services than does the current system of community college finance. To achieve this purpose, the Chancellor of the California Community Colleges shall develop, as an alternative to Section 84703 of the Education Code, a system of differential funding for community college districts.
>
> (b) The Chancellor shall conduct a differential funding study in consultation with an advisory committee composed of representatives from community college districts, the Department of Finance, the Office of Legislative Analyst, and the California Postsecondary Education Commission. District representation on the advisory committee may include representatives of the students, faculty, administration, and governing board members.
>
> (c) The study shall consider and make recommendations in at least the following areas:
>
> (1) The appropriate number and character of support categories for the community colleges.
>
> (2) An assessment of appropriate workload measures for each cost category based on each measure's relation to (A) costs of delivering the service, (B) fiscal incentives, and (C) the cost of collection and verification.
>
> (3) The development of a procedure to establish appropriate support levels for each category based on an analysis of fixed and variable costs, the impact of inflation, and other factors that influence the adequacy of these support levels.
>
> (4) The integration of student services as a component of district workload standards.
>
> (5) Estimates of the impact of the recommended changes on individual district's budgets.
>
> (6) Estimates of the costs associated with the implementation and operation of a differential funding system.
>
> (d) The Chancellor shall make a progress report to the Legislature on the study by March 15, 1984, and shall submit the final report by December 1, 1984.

CALIFORNIA COMMUNITY COLLEGES
Differential Funding Study

ACKNOWLEDGMENTS

(to be added)

CALIFORNIA COMMUNITY COLLEGES
Differential Funding Study

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PART ONE:

A PLAN FOR DIFFERENTIAL FUNDING FOR THE CALIFORNIA COMMUNITY COLLEGES

PART ONE: A PLAN FOR DIFFERENTIAL FUNDING FOR THE CALIFORNIA COMMUNITY COLLEGES

A. Summary of Study and Findings

Background

Financial support systems for the California Community Colleges have evolved over the years since 1907 when postgraduate courses first were authorized in the high schools.

Since 1973, the direction of change in support systems has occurred frequently and dramatically. Adaptation by the colleges has been extremely difficult. Orderly planning has not been possible for the State or for individual local districts. Imbalances and inequities among districts accumulated as a result of decisions made by local districts prior to the passage of Proposition 13 in 1978.

Reduced funding levels resulted in about a twenty-five percent reduction in purchasing power between 1979 and 1984. Course offerings were reduced significantly. A large block of courses was eliminated. Faculty were laid off or not replaced. Student support services were reduced. Expenditures for library and other instructional support services were cut. Essential maintenance was deferred.

Finance legislation enacted in 1983 (SB 851: Chapter 565, Statutes of 1983) directed that the Chancellor of the California Community Colleges conduct a differential funding study and develop a system of differential funding for community college districts.

Study Plan and Procedures

Staffing was provided. A study advisory committee was established in accordance with the legislative directive. Arrangements were made for the support of special consultants as needed.

Criteria were developed to guide the study and to be applied to the system to be developed. An overall, guiding principle for the study was that it be conducted with "fiscal neutrality": that it not be designed to save money or to generate money; that it contribute to policies which will make funding adequate, efficient, equitable, stable, and understandable.

Background information was provided in the following areas:

1. Current Practices in Other States
2. Current Practices in the UC System
3. Current Practices in the CSU System

4. Current Practices in the K-12 System

5. Current and Past Differential Funding in the California Community Colleges

6. Matriculation

7. Programs and Activities Eliminated or Reduced Significantly Within the Past Two Years

8. Marginal Costing in Higher Education

A general plan was developed for the study around eight basic research questions:

1. What support categories should be used in a differential funding system for the California Community Colleges?

2. What workload measures should be used for each cost category based on each measure's relation to (A) cost of delivering the service, (B) fiscal incentives, and (C) the cost of collection and verification?

3. What support levels should be used for each category based on an analysis of fixed and variable costs, the impact of inflation and other factors that influence the adequacy of these support levels?

4. What would be the impact of recommended changes on individual district budgets?

5. How should student services be integrated as a component of district workload standards?

6. What would be the estimated cost to implement and operate the proposed differential funding system?

7. What would be the advantages and what would be the disadvantages of a differential funding system in the California Community Colleges?

8. How should differential funding be implemented in the California Community Colleges?

Differential Cost Funding

Differential cost funding is a system of financial support related to the costs of providing educational programs and services. Unit costs are determined for categories of service. The impact of variables on costs is tested. Workload measures are provided for each category and support levels which recognize the impact of variables are provided for each unit of workload. Undue complexity should be avoided in such a system.

One objective of the finance of public education is to achieve a proper balance between state and local interests. The state seeks equity and accountability. The local college or district supports diversity and autonomy. Basic to a proper balance between state and local interests are agreements on mission, level and quality of service, cost of desired level of quality, and kind and level of accountability. Ultimately, agreement on these issues should form the foundation of a public education finance system.

As is true of any funding system, there are advantages and disadvantages. Several possible or potential strengths and weaknesses of differential funding were identified and considered. Among the major potential strengths are the following:

1. Can increase match between funding and programs offered,
2. Can recognize essential services other than instruction,
3. Can utilize different workload measures for different activities,
4. Can aid in cost comparisons,
5. Can aid in planning,
6. Can contribute to equity.

Among the major potential weaknesses are these:

1. May reduce flexibility,
2. May not be sensitive to local needs,
3. May discourage innovation,
4. May be too difficult to understand,
5. May add unduly to the burden of collecting, verifying, and reporting of data,
6. May encourage intervention by policymakers.

Efforts were made in recommendations developed to maximize potential strengths and to minimize potential weaknesses of this kind of finance system.

The Information Base

Data from reports to the Chancellor's Office for 1982-83 were used for analysis and comparison of expenditures by activity. Data submitted by all seventy districts from the following five reports were used in the analysis:

1. The 311 Financial Report (General Fund Expenditures by Activities),
2. The Course Classification Report,
3. The Course Activities Measures Report,
4. The Staff Data Report, and
5. The 320 Attendance Report.

Integration of the data from the five files was extremely difficult. A number of inconsistencies within the reports could not be reconciled. Field visits were made to twenty-nine districts to learn more about why differences existed among the reports.

As a result of efforts to reconcile the data and the field visits, it was concluded that current data, obtained regularly from the community college districts, are adequate for current funding procedures; that in the composite, attendance and budget and expenditure data are accurate; and that the data are adequate to provide a basic framework for differential funding but not for a fully developed and implemented system. At a lower level of detail (subdisciplines within instructional program activities) inconsistencies occur and full implementation of differential funding will require significant changes and improvements in the data and information system.

Development of data needed for finance should be coordinated and correlated with development of the overall information system. Four objectives were identified for development of a comprehensive information system:

1. To ensure data integrity;
2. To integrate different reporting systems;
3. To provide accessibility to information; and
4. To ensure accountability for information.

To meet these objectives changes are needed, many of which are incorporated in the proposal for implementation of Phase II of the Chancellor's Office Information System Project.

Needed changes to the data elements include the need for common identifiers, the need to add a financial aid component to the Student Data Reporting System and the need for automation of annual fiscal data reporting.

Additional procedures should be developed to assure complete reporting of needed data. A stable set of required data elements should be established. Elements of college operations outside state support should be identified so that costs can be separated from support rates for apportionment. Data discrepancies need to be validated and resolved. More uniform definitions and reporting procedures should be instituted.

A Differential Cost Funding Approach for the California Community Colleges

Data were analyzed for four major areas of service: 1) Instruction and Instructional Services; 2) Student Services; 3) General Services; and 4) Maintenance and Operations.

The analysis used data for 1982-83 as the basis for examination of historical cost factors. There were abnormalities in funding in 1982-83, among which was the $30 million reduction in support for avocational/recreational courses and classes. There were similar problems with every recent year and data from 1982-83 were the most recent and the most complete available.

Support categories ultimately selected were:

Instruction and Instructional Services: including instructional activities, instructional support, and instructional services;

Student Services: including admissions and records, counseling and guidance, and other support services;

General Services: including planning and policymaking and general institutional services; and

Maintenance and Operations.

Much time and effort were expended attempting to differentiate among instructional programs. Efforts to differentiate at the subdiscipline level (four-digit TOP code) were not successful because data are not adequate for that purpose. Further efforts were made to analyze differences at the major discipline level (two-digit TOP code). This resulted in development of two options for differentiation of instructional activities. Option 1 aggregates instructional workload into three broad cost categories representing major discipline areas on a statewide average cost basis. Option 2 continues use of three existing rates of support: credit programs, noncredit programs, and apprenticeship instruction, until such time as adequate data are available.

Depending upon the option selected, funds would be distributed through four main categories and three, or four, sub-categories, as follows:

Instruction and Instructional Services

Option 1	Option 2
High Range	Credit Programs
Medium Range	Noncredit Programs
Low Range	Apprenticeship Instruction
Apprenticeship	

Student Services

General Services

Maintenance and Operations

Possible implementation of differential funding should be accompanied by a change from the use of average daily attendance (ADA) as a measure of instructional workload. An adequate terminology is still under consideration for this workload measure. In this draft it is referred to as Full-Time Student Equivalent (FTSE). As the measure of workload for instruction, the measure should reflect the level of enrollment of full-time student equivalents, based on contact hours. The measure should continue to use positive attendance for open-entry/open-exit and noncredit courses. The measure of census should be taken from a single census rather than from the existing two. This would eliminate the existing attendance factor which theoretically connects enrollment to attendance.

For Student Services, the basic workload measure recommended is Headcount Enrollment with the measure to be taken, pending evidence of a better time, at the first census. (Or, the only census if a single census procedure is established.) This provides an additional break from ADA and recognizes that Student Services are provides to individual students regardless of the number of units attempted.

For Maintenance and Operations, the basic workload measure recommended is Assignable Square Feet. This is a further break from ADA and recognizes that workload in maintenance and operations is more stable than are enrollments.

For General Services, the recommended workload measure is a Percentage of Other Expenditures or Full-Time Faculty Equivalent. This provides a further break from ADA. It recognizes that workload in General Services is related to all other services and is more stable than are enrollments.

Basic workload measures suggested are, undoubtedly, an improvement over the single measure of average daily attendance. They should be adjusted, however, by appropriate factors (variables) to recognize the range of needs and characteristics of the diverse California Community Colleges. Factors have been identified which help to account for differences among colleges and districts. There is a further need to identify other factors and to refine factors into an appropriate index of need to be applied to the workload measure in each support category. For that purpose, it is recommended that four task forces be convened to consider factors and develop a need index for each major support category.

Suggested Plan for Implementation

A plan for implementation of differential cost funding should provide a framework within which funding is based upon workload as measured in assigned support categories. The basic elements for such a plan evolved from analysis discussed earlier. Other elements of the plan are considered below.

One element is related to the revenues to be included in differential funding. A list of revenue sources for the California Community Colleges includes revenues from:

ADA (including property tax, enrollment fees, and general State fund apportionment)
Apprenticeship Instruction
EOPS
HSPS
Matriculation (if it is funded)
VEA
JTPA
Special Fees

Of these revenues, the first two should be incorporated into differentiated funding initially. EOPS and HSPS should continue as categorically funded programs until such time as there is assurance that workload measures and support levels recognize and provide for the needs of EOPS and HSPS students in each of the colleges. Matriculation, if it is implemented, should be categorically funded during phase-in and, then, assimilated into the differential funding system. The others shuld remain outside differential funding.

A second additional element of the plan is related to determination of the total statewide apportionment and procedures for distribution of the apportionment to individual colleges.

Currently, the Statewide apportionment is determined annually in accordance with provisions of SB 851. A base year procedure is used with various revenue adjustments. Priorities are set among revenue adjustments in the event that general fund apportionments and other revenues are less than the amount computed for all districts on the basis of established formulas.

The procedures of SB 851 are a useful response to the great need for stability and predictability in funding, if SB 851 is funded fully and if enrollments return to base levels. The need for stability and predictability might be served even better by a three-year budget cycle with major adjustments made every three years. Such a procedure does not seem feasible at this time.

An appropriate balance between state and local interests is desirable in funding of public education. Under the present system, State interests are protected to the degree that each district has an enrollment limit. Local district interests are protected to the degree that each district can maintain enrollments at or near their limit. The present system does not achieve a proper balance between the State's interest in equity and accountability and the local districts' interest in diversity and autonomy. Basic to achieving a proper balance is agreement on: 1) mission; 2) level and quality of services; 3) cost of desired quality of service; and 4) kind and level of accountability. Until such time as there is agreement as described above and until there is a history of reliable, comparable cost information, *an annual budget process with consideration of the total apportionment each year is recommended*.

Also, until such time as there is a history of reliable, comparable cost information, a differential funding system can only be used as a system for apportionment of available revenues. The greater value of such a system is that accurate and complete cost information provides a powerful justification for adequate resources.

Currently, funds are apportioned to individual districts on the basis of a single workload measure (ADA) in accordance with formulas, all of which are in statute. Currently, the Board of Governors must seek and obtain legislation for any needed adjustment or to correct any inadvertent inequity in allocation procedures. The great diversity of district needs and characteristics must be accommodated by legislation. The Legislature must become involved in the details of each change in each allocation formula. Basic support categories, workload measures, support levels, and procedures for marginal and inflationary adjustments should be set by legislation. Total State apportionment and changes in rates of support should be determined in the annual budget process. In a system designed to be responsive to costs of delivering instruction and services, formulas for allocation of funds will need to be adaptable to changes as they occur and are identified.

Improvement of data must be an element of the plan for differential funding. Current data serve the purpose of the current finance system, but much evidence is reported regarding the inadequacy of available information for purposes of differential funding. Comment is included, also, about the general need for a more comprehensive, integrated information system. The need for and value of information is greater than were the needs of a few years ago and will be even greater with differential funding. It is anticipated that design and implementation of Phase II of the Chancellor's Office Information Systems Project, if funded, would meet the data requirements for differential funding as well as the need for a comprehensive information system. It is possible but not preferable to upgrade data capability for the finance system separately from improvement and upgrading of the overall system.

The local need for data improvement, also, is great. Field visits to twenty-nine of the college districts revealed an extreme variation in district technical and fiscal ability to provide additional data. Some have sophisticaed, integrated data systems. Others have virtually no technical support and many are dependent upon counties for a portion of their data needs. Many others have little or no ability to integrate data from their different operating areas. Significant improvement is needed in the ability of districts to collect and integrate information. If adequate improvement cannot be accomplished within the districts, and if Phase II of the Information Systems Project is not funded or not implemented in time to match possible phasing suggested for differential funding, an alternative based on sampling is proposed. In this alternative, cost information would be collected and analyzed for each of the four main support categories in a four-year cycle with a study of one of the areas each year. The cycle could be accelerated if necessary or desirable. It is recommended that data provided by the districts be improved by developing a comprehensive and integrated information system or by conducting cost studies on a four-year cycle.

A final element in a plan for a system of differential funding is that of implementing the system in an orderly, purposeful manner. The California Community Colleges need a finance system which is stable and predictable over a period of time. There is a need to recover from the rapidity and extent of change in the past decade. Transition to a new system will add to an already excessive degree of uncertainty. The transition, therefore, should occur over a sufficient period of time to permit adequate planning and adjustment while, at the same time, the transition should be timely.

Existing finance legislation (SB 851) becomes inoperative on July 1, 1987, and, as of January 1, 1988, is repealed unless extended. Findings from the community college reassessment study (SB 2064-Stiern) are due to be submitted to the Joint Committee on the Master Plan by December 1, 1985. The transition to differential cost funding should be coordinated with these dates and activities. Three phases are suggested:

PHASE I - PLANNING AND PRELIMINARY ACTIVITIES (January 1, 1985 - June 30, 1985)

1. Adopt policy revisions and enabling legislation.
2. Convene task forces to develop needs indices for each support category.
3. Specify and collect information required for Phase II (beginning July 1, 1985).
4. Specify information to be required for Phase III (beginning July 1, 1987).
5. Conduct unit cost study of Instructional Services (to be repeated once every four years).

PHASE II - TRANSITION (July 1, 1985 - June 30, 1987)

A. July 1, 1985 - June 30, 1986

1. Apportion funds for operations on the basis of SB 851.

2. Fund data improvement elements.

3. Collect information required for Phase III, including that required for further differentiation of Instructional Services.

4. Conduct unit cost analysis of Student Services (to be repeated once every four years).

5. Develop formulas and determine procedures for distribution of State apportionment to individual districts.

B. July 1, 1986 - June 30, 1987

1. Apportion funds for operations on the basis of differential costs for four major support categories: Instruction and Instructional Services (under option 1 or option 2 in the proposed plan), Student Services, General Services, and Maintenance and Operations.

2. Retain categorical funding for EOPS and Handicapped.

3. Collect information required for Phase III.

4. Conduct unit cost analysis of General Services (to be repeated once every four years).

PHASE III - OPERATIONAL (from July 1, 1987)

1. Apportion funds for operations on the basis of differential funding for support categories Instructional Support (including support categories identified in Phase II) Student Services, Institutional Support, and Maintenance and Operations.

2. Include funding for EOPS and HSPS and Matriculation, if funded and implemented, in Student Services as an element of differential funding rather than as categorical funding.

3. Conduct unit cost analysis of Maintenance and Operations (to be repeated once every four years).

4. Repeat the cycle of unit cost studies after this year, and adjust allocation formulas as appropriate after each cost analysis.

Costs

(Estimates of costs are to follow.)

B. Basic Principles

It is recommended that the Board of Governors adopt the following principles for a system of differential funding in the California Community Colleges:

Funding for the California Community Colleges be adequate, efficient, equitable, stable, and understandable.

A. *The funding system should:*

   1) *provide incentives for efficiency consistent with State goals and objectives for college operations;*

   2) *provide for maximum flexibility at the local district level to allow for adaptation to local conditions and emerging needs;*

   3) *avoid shifting large amounts of funding from one district to another without adequate time and allowance for phasing; and,*

   4) *avoid undue collection and verification costs.*

B. *Differential Funding should:*

   1) *relate support for college operations to expected costs yet not restrict expenditure patterns;*

   2) *eliminate or minimize fiscal incentives to offer one program or activity rather than another; and*

   3) *provide for essential, nonenrollment-driven services and activities.*

C. *Support categories should:*

   1) *be limited in number;*

   2) *identify fundamentally distinct activities; or*

   3) *if within activities, identify appropriate and major differences in operational costs.*

D. *Workload measures should:*

   1) *recognize the differential costs in instruction and other services; and*

   2) *relate, as closely as possible, to changes in the cost of providing the service or activity.*

E. *Support levels should:*

   1) *reflect demonstrated differences in costs;*

2) *provide for the cost of inflation as well as planned workload and program changes; and*

3) *provide funding for workload changes at an incremental or marginal rate that accurately reflects the variable, rather than fixed, costs of such changes.*

C. Elements of the Proposed Plan

It is recommended that the Differential Funding System for the California Community Colleges contain the following elements:

I. *INCLUDE WITHIN THE DIFFERENTIAL FUNDING SYSTEM REVENUES CURRENTLY IDENTIFIED AS THOSE FROM:*

- *ADA (Including property taxes, enrollment fees, and state general fund apportionment)*
- *APPRENTICES*

II. *APPORTION FUNDS THROUGH FOUR MAIN SUPPORT CATEGORIES AND THREE SUB-CATEGORIES, AS FOLLOWS:*

Instruction and Instructional Services

Option 1	*Option 2*
High Cost	*Credit Programs*
Medium Cost	*Noncredit Programs*
Low Cost	*Apprenticeship Programs*
Apprenticeship Program	

Student Services

General Services

Maintenance and Operations

III. ASSIGN SEPARATE BASIC (OR CORE) WORKLOAD MEASURES TO EACH SUPPORT CATEGORY, AS FOLLOWS:

Support Category	*Basic (Core)* ***Workload Measure***
Instruction and Instructional Services	*Full-Time Student Equivalent (FTSE)**
Student Services	*Headcount Enrollment (HCE)*
General Services	*Percentage of Allocation in Other Categories*
Maintenance *& Operations*	*Assignable Square Feet (ASF)*

*****Although*** *nomenclature for this measure is still being considered, the terminology of Full Time Student Equivalent (FTSE) is used in this draft of the report.*

IV. GENERATE SUPPORT LEVELS BY APPLYING VARIOUS FACTORS TO THE BASIC (OR CORE) WORKLOAD MEASURE TO RECOGNIZE DIFFERENCES AMONG DISTRICTS IN THE AREAS OF (1) NEED, SUCH AS STUDENT CHARACTERISTICS; AND (2) DISTRICT CHARACTERISTICS, SUCH AS COLLEGE SIZE.

V. DETERMINE TOTAL, STATEWIDE APPORTIONMENT FOR THE COMMUNITY COLLEGES ANNUALLY AND DISTRIBUTE STATE APPORTIONMENT TO INDIVIDUAL DISTRICTS ON THE BASIS OF PROCEDURES DEVELOPED BY THE BOARD OF GOVERNORS AND THE CHANCELLOR.

VI. PROVIDED DATA REQUIRED BY DEVELOPING A COMPREHENSIVE AND INTEGRATED INFORMATION SYSTEM OR BY CONDUCTING COST STUDIES ON A SAMPLING BASIS.

VII. CONVENE FOUR TASK FORCES TO CONSIDER FACTORS AND DEVELOP A NEED INDEX FOR EACH MAJOR SUPPORT CATEGORY.

VIII. ESTABLISH A STATE FUND FOR LOCAL DISTRICT DATA IMPROVEMENT PROJECTS.

IX. ADOPT A CALENDAR FOR PHASING-IN THE ELEMENTS OF DIFFERENTIAL FUNDING.

*PHASE 1 - PLANNING AND PRELIMINARY ACTIVITIES (January 1, **1985** - June 30, 1985)*

PHASE 2 - TRANSITION (July 1, 1986 - June 30, 1987)

PHASE 3 - OPERATIONAL (from July 1, 1987)

PART TWO:

A STUDY OF DIFFERENTIAL FUNDING FOR THE CALIFORNIA COMMUNITY COLLEGES

CHAPTER 1.

BACKGROUND

PART TWO: A STUDY OF DIFFERENTIAL FUNDING FOR THE CALIFORNIA COMMUNITY COLLEGES

CHAPTER 1. BACKGROUND

A. History of Funding in the California Community Colleges

Financial support for the California Community Colleges has evolved over the years as have the colleges and the purposes they serve. The following brief summary traces the evolution of financial support and support systems for the colleges.

1907 - Postgraduate courses in high school were authorized.

1917 - High school districts of $3 million or more in assessed valuation were permitted to establish junior colleges. Fifteen dollars per unit of ADA (average daily attendance) was apportioned to junior colleges. ADA was computed as for high schools.

1921 - A district tax for junior colleges was authorized. A state fund for junior colleges was established from Federal funds. Funds were apportioned on the basis of $2,000 per junior college plus $100 per ADA on an equal matching basis.

1931 - Provisions were made for inter-district contracts. The State Board of Education was required to approve junior college programs before the college was eligible for state support. Payment of tuition for students not residing in a district maintaining a junior college was made mandatory.

1935 - A method was established for measuring junior college ADA as a minimum of 175 days based upon 15 hours per week with no more than one ADA per student.

1937 - A maximum local tax rate of 35¢ was established.

1945 - Provisions were made for counting summer session attendance for apportionment.

1947 - The concept of state support based upon a foundation program was established. There was $2,000 apportionment for each junior college with $90 per ADA as basic state aid. Each district contributed the amount derived from a 20¢ tax against the assessed valuation. If necessary, state equalization aid was added to provide the $200 per ADA level set in the foundation program.

1949 - A unit of junior college ADA was defined as the total number of hours of student attendance divided by 525.

1953 - Separate accounting of the attendance of adults (students 21 years of age or older enrolled in 10 or fewer class hours) was required. Basic state aid and the foundation program were increased.

1957 - Basic state aid and the foundation program were increased again. The foundation program was set at $410 per ADA. Basic state aid was set at $125. The district's contribution was computed on the basis of a 33¢ tax rate on the district's assessed valuation.

1959 - The foundation program was increased to $424 per ADA. Basic state aid remained at $125. This legislation authorized that, in 1961, the foundation program would be at $495 per ADA with a district contribution equal to 24¢ multiplied by assessed valuation. It provided, further, that, in 1961, equalization aid could only be computed on the basis of students residing in the district.

1967 - The foundation program was set at $628 per resident, non-adult ADA. Basic state aid remained at $125. This change required a computational local effort equal to 25¢ per $100 of assessed valuation. Assessed valuation was modified by the "Collier" factor (to compensate for varying assessment rates). A special formula was adopted for small districts of 1,000 ADA and under.

1973 - Average revenue per student (revenue limit) was specified with state and local tax revenues varying as needed to provide the specified support. Each district was guaranteed full funding for ADA growth.

1975 - A five percent cap or limit was set on ADA growth. Local districts retained the authority to increase local property taxes to provide additional revenue.

1976 - A form of tax rate control was re-established. State apportionment was provided at an average rate rather than according to a foundation program. Assessed valuation of local real property increased rapidly.

1978 - Proposition 13 was approved by the electorate limiting the local property tax. "Bail out" legislation provided for block grants from the state surplus. Funding was at about seven percent below the prior year and was based on revenue received in 1977-78 rather than on expenditures per ADA. Prior to the passage of Proposition 13, community colleges received about 55 percent of their revenues from local property taxes with the tax rate under local control, within limits. Since 1978, the community colleges have been "state-funded" with a portion of that support from the local property tax. The local share of support has been between 20 and 30 percent on a statewide basis. Local contributions, in 1982-83, varied between 6.5 percent in the San Francisco Community college District to 100 percent in the West Kern District. The loal share is no longer set or controlled by local district boards of trustees. Differences in the proportion of local and state revenues from district to district may be seen in Table One.

TABLE 1

CALIFORNIA COMMUNITY COLLEGES

PERCENT OF TOTAL GENERAL REVENUE FROM LOCAL PROPERTY TAX AND STATE GENERAL APPORTIONMENT

District	Total General Revenue	Local Property Tax Revenue	Percent Local Property Tax Revenue is of Total Revenue	State General Apportionment	Percent State General Apportionment is of Total Revenue
Allan Hancock	12,029,488	2,198,182	.1827	9,831,306	.8173
Antelope Valley	6,280,576	975,669	.1554	5,304,907	.8446
Barstow	3,014,504	882,960	.2929	2,131,544	.7071
Butte	10,741,511	4,028,266	.3750	6,713,245	.6249
Cabrillo	12,288,218	4,052,447	.3290	8,235,771	.6702
Cerritos	23,111,390	1,914,821	.0829	21,196,569	.9171
Chaffey	15,422,288	4,910,462	.3184	10,511,826	.6816
Citrus	10,233,208	930,923	.0910	9,302,285	.9090
Coachella Valley	8,784,241	6,213,112	.7073	2,571,129	.2927
Coast	61,563,108	18,661,018	.3030	42,902,090	.6999
Compton	7,082,797	1,088,174	.1536	5,994,623	.8464
Contra Costa	37,962,580	11,900,809	.3135	26,061,771	.6865
El Camino	28,199,971	5,238,294	.1857	22,951,677	.8143
Foothill	41,151,344	11,047,198	.2685	30,104,146	.7317
Fremont-Newark	9,205,803	1,683,549	.1829	7,522,254	.8171
Gavilan	4,833,484	1,980,264	.4097	2,853,220	.5903
Glendale	12,669,046	1,526,651	.1205	11,142,395	.8795
Grossmont	20,299,595	7,558,106	.3723	12,741,489	.6277
Hartnell	9,558,746	4,293,045	.4491	5,265,701	.5509
Imperial	6,049,901	1,599,277	.2643	4,450,624	.7357
Kern	22,582,074	12,406,864	.5494	10,175,210	.4506
Lake Tahoe	1,636,541	902,186	.5510	734,355	.4484
Lassen	4,317,302	670,180	.1552	3,647,122	.8448
Long Beach	27,741,913	3,227,151	.1163	24,514,762	.8836
Los Angeles	160,172,663	34,224,122	.2137	125,948,541	.7863

District	Total General Revenue	Local Property Tax Revenue	Percent Local Property Tax Revenue is of Total Revenue	State General Apportionment	Percent State General Apportionment is of Total Revenue
Los Rios	50,049,820	8,219,598	.1642	41,830,222	.8358
Marin	15,107,767	6,415,896	.4247	8,691,871	.5753
Mendocino	3,537,442	1,540,235	.4354	1,997,207	.5646
Merced	10,389,620	2,230,214	.2146	8,159,406	.7853
Mira Costa	10,439,981	6,577,786	.6301	3,862,195	.3699
Monterey	9,311,601	2,127,783	.2285	7,183,818	.7715
Mt. San Antonio	27,321,106	3,773,831	.1381	23,547,275	.8619
Mt. San Jacinto	3,879,556	2,072,888	.5343	1,806,668	.4657
Napa	8,524,578	2,474,552	.2903	6,050,026	.7097
North Orange	48,043,660	13,958,089	.2905	34,085,571	.7095
Palomar	19,352,849	8,909,739	.4604	10,443,110	.5396
Palo Verde	939,168	289,961	.3088	649,207	.6912
Pasadena	27,156,241	3,274,706	.1206	23,881,535	.8794
Peralta	38,399,378	5,070,790	.1321	33,328,588	.8679
Rancho Santiago	28,606,698	10,476,338	.3662	18,130,360	.6338
Redwoods	10,638,786	3,709,262	.3486	6,929,524	.6514
Rio Hondo	13,667,086	1,358,239	.0994	12,308,847	.9006
Riverside	15,072,021	3,176,395	.2107	11,895,626	.7892
Saddleback	29,385,991	17,445,191	.5937	11,940,800	.4063
San Bernardino	21,170,292	4,891,678	.2311	16,278,614	.7689
San Diego	57,855,630	14,346,363	.2480	43,509,267	.7520
San Francisco	53,476,588	3,483,677	.0651	49,992,911	.9349
San Joaquin Delta	19,499,739	4,552,164	.2334	14,947,575	.7666
San Jose	21,669,211	10,885,425	.5023	10,783,786	.4977
San Luis Obispo	7,295,280	4,424,926	.6066	2,870,354	.3934
San Mateo	33,981,500	16,691,350	.4912	17,290,150	.5088
Santa Barbara	15,040,819	3,418,537	.2273	11,622,282	.7727
Santa Clarita	4,514,819	957,998	.2182	3,556,821	.7878
Santa Monica	18,767,677	2,082,083	.1109	16,685,594	.8891
Sequoias	9,709,708	2,972,300	.3061	6,737,408	.6938

District	Total General Revenue	Local Property Tax Revenue	Percent Local Property Tax Revenue is of Total Revenue	State General Apportionment	Percent State General Apportionment is of Total Revenue
Shasta-Te-Tr	10,706,826	4,081,652	.3812	6,625,174	.6188
Sierra	11,221,970	5,928,382	.5282	5,293,588	.4718
Siskiyou	3,304,261	1,292,285	.3910	2,011,976	.6090
Solano	9,424,805	1,853,133	.1966	7,571,672	.8034
Sonoma	22,043,165	7,596,864	.3446	14,446,301	.6554
South County	20,291,437	3,354,866	.1653	16,936,571	.8347
Southwestern	13,322,130	2,673,058	.2006	10,649,072	.7994
State Center	23,333,866	9,186,099	.3937	14,147,767	.6063
Ventura	32,144,132	9,796,310	.3050	22,317,822	.6950
Victor Valley	5,452,432	1,856,750	.3406	3,595,682	.6595
West Hills	4,379,725	1,725,661	.3941	2,654,064	.6059
West Kern	2,708,082	4,311,841	1.0000	---	
West Valley	23,782,790	11,425,051	.4804	12,357,739	.5196
Yosemite	20,585,382	7,947,338	.3861	12,638,044	.6139
Yuba	12,356,396	5,635,947	.4561	6,720,449	.5439
Statewide	1,404,764,303	394,606,961	.2809	1,011,781,101	.7202

Source: Fiscal Data Abstract, Table III-1

1979 - A fixed appropriation of State General Fund revenues was set in combination with legislatively prescribed local revenues. A base year concept was used, again, with an attempt to "equalize" funding rates per ADA by changing the rate of inflationary allowance for each college. Marginal funding was introduced with growth or decline in ADA from one year to the next funded at a fraction (about 2/3) of the average revenue per ADA.

1981 - Each district was assigned an ADA growth cap which, if exceeded, would not produce additional state revenues. Growth or decline in noncredit ADA was funded at $1,100 per ADA.

1982 - No additional funding was provided for growth or for inflation. A $30 million reduction was mandated in "recreational/avocational" classes.

1983 - Base year funding concept is continued with revenues added for increased ADA or subtracted for decline in ADA (at incremental rate). Equalization funding is added, if applicable. Inflation funding is added. Projected property tax receipts are subtracted from the state apportionment share. Small district factor is included to adjust small district average revenues. Priorities are set among revenue adjustments in the event that general fund appropriations and other revenues are less than the amounts computed for all districts according to the established formulas.

1984 - General student fees are imposed for the first time. The general student fee was set at $50 per semester for students enrolled in classes totalling 6 or more credit semester units and $5 per unit per semester for students enrolled in classes totalling less than 6 credit semester hours. Student fees are treated as is the local property tax share of state apportionment. Fees are not used to increase general apportionment. Total general revenues are determined for each district and the amount generated by fees and by local property taxes in each district is used to "offset" that amount for each district in the state general apportionment.

B. Impact of Changing Funding Policy

Many revisions have occurred in funding policies and mechanisms over the years. Since 1973, a fairly orderly evolution of funding mechanisms has given way to frequent and dramatic shifts in funding philosophy and procedures and in levels of funding. Only the most sophisticated observer has been able to follow those changes and to understand how community colleges are funded. Planning has been virtually impossible in this environment.

It was to be expected that each local district would respond to changed policy in what it considered to be in the best interest of its local constituency. Choices made by local districts prior to 1978 have a continuing and varied impact on support levels with the result that some district support levels are the beneficiaries and some are the victims of history.

Many districts chose to assess special taxes such as those for adult education or for community services. Others did not or chose to assess only a portion of those permissive taxes. In some districts, the local electorate passed special override taxes for special purposes such as for health and welfare benefits or for facilities development or for improved services. With the implementation of base budgeting procedures, districts which had assessed special taxes to provide for special services or to enhance their programs had a higher revenue base.

The concept of average revenue per student introduced in 1973 provided a powerful incentive for growth. Some districts aggressively sought additional enrollment and responded eagerly to a growing public interest in services. The current enrollment cap on districts was affected by those decisions. Staffing and facilities were expanded to accommodate those choices.

The five percent cap or limit on growth in 1975 limited the cost to the State but local districts retained the right to increase property taxes. Districts responded in various ways. Those which chose to increase taxes have a higher revenue base.

Even though the Legislature imposed a tax rate control in 1976, assessed valuation was increasing rapidly. Some districts chose to keep tax rates the same, thus increasing their revenues. Those decisions are now reflected in a higher revenue base and, very likely, in higher commitments to personnel and to program support.

Block funding after the passage of Proposition 13 was based on revenues received in 1977-78 rather than on expenditures. Some districts had chosen for 1977-78 to spend from reserves in order to keep tax rates down. That choice resulted in a lower revenue for their district for 1979-80 and a lower revenue base for the future.

Imposition of student fees has impacted districts differently depending upon choices made earlier. The most significant example is that of student health services. Some districts had extensive student health services paid for from student fees. The health fee was "folded in" or absorbed with the new general fee. Those districts must now absorb within their general fund obligations those student health services. Districts which had chosen not to have student-paid health services need not now provide such services with the result that they have the resources such services would require for other general fund expenditures.

Prior to 1978, the impact of choices made at the local level were felt, for the most part, by the local taxpayer and by the State General Fund. Decisions made in one district had little direct impact on other districts. That is no longer the case. With an overall limit on State funds for all the colleges, decisions made in each district over the years now have a direct impact on all other districts. That is one of the several significant results of Proposition 13.

There were other results of Proposition 13 which, when added together, lead to the conclusion that no public institution was as profoundly affected by that initiative as was the community college. Prior to June of 1978, the community colleges were a system of locally-controlled, relatively autonomous college districts. Each had a local property tax which, within limits, could be adjusted to meet local needs as locally-elected trustees saw them. As a system, they received more than half their support from the local property tax. After the vote in 1978, the colleges became dependent upon the State for about three-fourths of their funding. Local districts no longer had control over their own revenues even though they still controlled their expenditures. Even if there had not been other concurrent changes (a shifting public attitude away from increased access and diversified services, a growing concern over the quality of service and performance, increasing uncertainty over the mission and role of the colleges, a bitter controversy over fees), Proposition 13 would have resulted in a basic and fundamental change for the California Community Colleges.

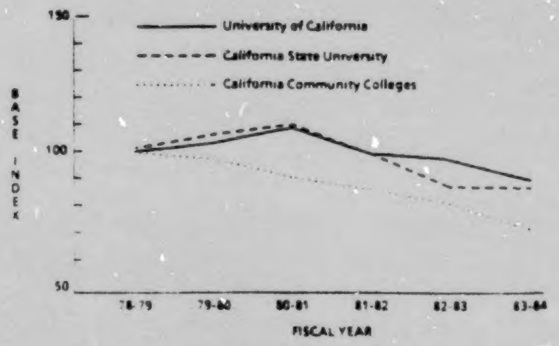
C. Impact of Reduced Funding Levels

As efforts were made to respond to changing public policy and to a deteriorating fiscal situation, funding policies changed almost annually between 1973 and 1983. During the last half of that decade, fiscal support for all of higher education declined sharply. In July of 1983, the Director of the California Postsecondary Education Commission reported:

> "...funding for higher education has declined during four of the past six fiscal years, in terms of the purchasing power of the State dollars provided. Inflation-adjusted dollars have declined during each of the last three fiscal years, for a total decline of 21%. The current fiscal year, 1983-84, shows the worst decline, a loss of 2.1% in current dollars but a 8.1% loss in real purchasing power of those dollars."[1]

The decline was reported graphically in testimony of the Director of CPEC to the Assembly Special Committee on the California Community Colleges on October 26, 1983, as seen in the table below[2].

Percent Change in Support Per Student at the University of California, California State University, and California Community Colleges, 1978-79 Through 1983-84 (1978-79 Base = 100)



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Earlier in the year, the Director of CPEC had reported on the impact of budget limitations on the community colleges:

> "...we find compelling evidence that the existing and projected levels of State and property tax support for the community colleges are inadequate to maintain access for Californians to high quality institutions. Reductions in course offerings of more than 10 percent have occurred this year in over one-fourth of the colleges, and thousands of potential students have been turned away because of limited space in those classes that remain. This year two-thirds of the colleges laid off part-time faculty and one-fourth laid off full-time faculty. Seventy-five percent of the colleges indicate that faculty replacements were not sought for normal attrition. Sixty-one percent of the colleges reported that scheduled expenditures for library acquisitions were deferred and reductions in student support service staff were indicated by 4[illegible] percent of the colleges."[3]

And, in April of 1984, the Director of CPEC pointed out that, over the past five years, the community colleges had lost 13.2 percent of total apportionments as measured in constant dollars and roughly twice that percentage in terms of their purchasing power per student.[4]

In adopting finance legislation for the community colleges in August, 1983, the Legislature declared its intent to provide sufficient revenues and a stable, long-range finance law. It declared its intent to "fund community colleges in a manner which better reflects the cost of delivering instruction and services than does the current system of community college finance." It directed the Chancellor to develop a "system of differential funding for community college districts." Direction for the study was quite specific in language drafted by the staff of the California Postsecondary Education Commission.

D. Expectations for Differential Funding

For some time, interest has been expressed in the possibility that a system of differential funding might be appropriate and useful for the California Community Colleges. In a long-term finance plan put forth by the Board of Governors in 1979, differential funding was considered. Some of the problems of differentiating instructional activities on the basis of programs were identified. Mode of instruction was proposed as a method for differentiation.

> "Attempting to correct the problem by providing differential funding by program presents many difficulties. While it may be possible to determine cost differences among programs, many of the differences are a function of how long the program has been offered or the predominant instructional technique used. New programs with new faculty cost less than older established programs simply because

> of the differences in salary costs and, other factors being equal, the same program in a new college will cost less than in an old college. A program which relies heavily on labs and shops will cost more than the same program which relies primarily on lecture sessions or independent study. Attempting to adjust funding rates for college size, geographic location, demographics, methods of instruction and, at the same time, program mix (corrected for the age of the program) appear too complicated."
>
> "The long-term plan proposes a limited number (five) of distinctions related to the method of delivering instruction and other services. By utilizing measures that are more closely related to costs, present fiscal incentives should diminish somewhat, thereby encouraging districts to plan and implement programs because they are needed, not because they generate a certain level of revenue."[5]

In March of 1983, the California Postsecondary Education Commission approved principles of financing current operations of the California Community Colleges in which it was said, "Financing mechanisms should relate support for college operations to expected costs, yet not restrict expenditure patterns, by providing: (among others) differential funding based on a limited number of major instruction and support categories that most accurately reflect differences in the costs of community college operations."[6]

It is not possible to recapture completely or to describe precisely the concerns and expectations of all who participated in the development of legislation mandating a system of differential funding. Some of the issues which led to the decision have changed. The economic situation has improved somewhat. Some persons are of the opinion that SB 851, if fully funded, provides an adequate finance mechanism for the community colleges through 1986-87. That would be fortunate. A period of stability is needed. Time and careful consideration are needed for development of and transition to a new funding system. Even so, there will remain the question of what to do after 1986-87. There will remain the concerns which led to the legislation. In this regard, it is useful to attempt to identify the intent and the expectations of those who drafted and agreed to the language requiring development of a system of differential funding.

An effort to identify expectations was made at the outset of the study. Legislative staff and agency staff members and community college personnel were surveyed informally. They were asked to describe the reasons for differential funding and their expectations for a new finance system.

There was general agreement that essential, non-ADA-generating activities should be protected from disproportionate reductions during periods of decline in enrollment and funding. General concern was expressed by those surveyed regarding the use of ADA (average daily attendance) as the single workload measure for funding. ADA is an historic measure evolving from K-12. It refers to attendance rather than to enrollment. As a single workload measure it is believed to place undue emphasis upon enrollment. It tends not to recognize that there are some essential services other than instruction. A single measure does not account adequately for varying incremental costs among services nor does it provide adequately for incremental adjustments during enrollment decline. It does not recognize, for example, that the cost of maintenance and operations changes relatively little with changes in enrollment, nor that utility costs have increased more rapidly in recent years than have other costs. It does not recognize that student services have changed significantly in recent years and that workload in student services is, undoubtedly, more nearly related to students contacted than to total hours of attendance. With ADA as a single workload measure in an environment of sharp budget reductions, replacement and upgrading of capital items, such as instructional equipment, have been neglected.

There was not universal agreement about how much more high-cost instructional programs had suffered than had low-cost programs during recent years of cut-backs. There was agreement, however, that funding should be academically neutral. It should not favor high-cost over low-cost programs. It should not favor academic over vocational programs or vice-versa. Academic decisions should be made for educational rather than for fiscal reasons. There was agreement, also, that there should be some recognition of start-up costs associated with new programs, especially high-cost programs.

There was agreement that a period of stability in funding is essential for adequate planning.

There was strong agreement that any new funding system should recognize that the community colleges serve diverse communities with unique local needs. This requires maximum flexibility and control at the local level. In this regard, those surveyed recommended avoidance of standardized, statewide allocations; increases in categorical funding; and central control of line-item expenditures. Those surveyed agreed that a new finance system should be easy to understand. It should not be complex. It should have few categories and simple formulas. Costs of collection and verification of data should be kept to a minimum. Implementation of a new system should be structured so that no district would suffer losses during the transition.

Concern was expressed that special interests would try to use the study and the new funding mechanism to justify more funds for the areas of their interest and less for others. Some expressed concern that a new system would "freeze-in" existing inequities and imbalances. Others were concerned that, without a cost-based funding system, historical inequities and imbalances would be perpetuated.

Legislative and agency representatives hoped for a system with incentives rather than mandates for implementation of State policy. They noted that the Legislature expected the new system to provide improved procedures for equalization.

College personnel expressed concern that differential funding might not reach to more basic fiscal issues such as adequacy and stability. They were concerned, especially, that the study of differential funding not be used as a vehicle for altering the mission and function of the California Community Colleges. They noted that the first requisite of an adequate finance plan is firm agreement on the function to be served. Clearly, there is not agreement on the mission of the California Community Colleges. In fact, extensive study of the mission is anticipated. They warned that any finance plan should be flexible enough to be adapted as necessary, depending upon results of the studies of mission.

These intentions, expectations and concerns were considered as the study advisory committee discussed and adopted criteria to guide the study of differential funding. (Criteria are discussed in the next chapter.)

FOOTNOTES, CHAPTER ONE

1. California Postsecondary Education Commission, Appropriations in the 1983-84 State Budget for the Public Segments of Postsecondary Education. Director's Report. Sacramento: CPEC, 83-29, July 1983. (p. 6)

2. ________, A Prospectus for California Postsecondary Education 1985-2000. Director's Report. Sacramento: CPEC 83-31, November 1983. (p. 12)

3. ________, Overview of the 1983-84 Governor's Budget for Postsecondary Education in California. Director's Report. Sacramento: CPEC 83-18, April 1983. (p. 13)

4. ________, Overview of the 1984-85 Governor's Budget for Postsecondary Education in California. Director's Report. Sacramento: CPEC 84-13, April 1984. (p. 15)

5. Board of Governors, California Community Colleges, Long-Term Finance Plan: Recommendations for the 1980's, Sacramento: September, 1979. (p. 27)

6. California Postsecondary Education Commission, Principles for Community College Finance, Sacramento: March 1983. (p. 32)

CHAPTER 2.

STUDY PLAN AND PROCEDURES

CHAPTER 2. STUDY PLAN AND PROCEDURES

A. Advisory Groups and Staffing

It was determined that the importance and significance of the study required more staff time than could be provided by a current member of the Chancellor's staff. An initial analysis was begun of existing practices in other states. Consideration was given to development of a plan for the study and for appropriate staffing.

A consultant was added, part-time and as-needed, to the Chancellor's staff to develop a general plan. The consultant was directed to convene an advisory committee as described in the legislation and to prepare recommendations for conducting the study.

An initial planning committee was formed and met in December of 1983. The committee, as directed by the Legislature, included representatives from community college districts, the Department of Finance, the Office of the Legislative Analyst, and the California Postsecondary Education Commission. As the study progressed, additions were made to the advisory committee.

A Student Services Subcommittee of ten community college student personnel officers was formed because of the special legislative directive to integrate student services.

A Research Subcommittee of seven community college research officers was formed to advise in obtaining, processing, and analyzing data from the colleges.

Monthly meetings of the Differential Funding Study Advisory Committee began in December of 1983. The Student Services Subcommittee began to meet in February of 1984. The Research Advisory Subcommittee began to meet in March of 1984.

In March of 1984, a half-time consultant was added to the study staff for data development and analysis. A limited number of days of a research consultant were arranged, beginning in May of 1984, to develop an instrument and conduct field visits relative to the information system. Arrangements were made for special consultants John Augenblick and Gordon Van de Water of Augenblick, Van de Water & Associates, Inc. to advise and assist in the study.

B. Criteria to Guide the Study

Among the first matters considered by the general advisory committee was that of criteria or basic principles which would guide the study. Guidelines were developed after a review of current literature, consideration of recent policy statements of state agencies, consideration of legislative intent and expectations and discussion within the committee. It was noted that the Legislature had articulated sound, traditional, general funding policies in adopting SB 851. The Legislature had declared its intent that "community college revenues and the finance legislation be sufficient to meet increasing costs and enrollment pressures." It declared its intent that districts be provided with a stable, long-term finance law to better enable the community college districts to plan, budget, and develop their program offerings to meet current educational needs of their respective communities. This suggested a commitment to efficient funding procedures. The Legislature expressed its concern for equity in funding by requiring development of a differential funding system to replace that section of the Education Code concerned with equalization (E.C. Section 84703).

Members of the advisory committee recognized that funding is a primary concern in the field as well as for policy makers. They agreed that a study of funding should be objective and should be conducted in an atmosphere as free as possible from advocacy for either saving money or generating money. Following are the basic principles, or criteria, which were adopted to guide the committee in its study. One general criterion "understandability" was added later.

Basic Principles

The study of funding for the California Community Colleges should be conducted with "fiscal neutrality": That is, the study itself should not be designed to save money or to generate money. The study should contribute to policies which will make funding adequate, efficient, equitable, stable and understandable.

Any funding system should:

1. Provide incentives for efficiency consistent with state goals and objectives for college operations;
2. Provide for maximum flexibility at the local district level to allow for adaptation to local conditions and emerging needs;
3. Avoid shifting large amounts of funding from one district to another without adequate time and allowance for phasing; and
4. Avoid undue collection and verification costs.

Differential funding should:

1. Relate support for college operations to expected costs yet not restrict expenditure patterns;
2. Eliminate or minimize fiscal incentives to offer one program or activity rather than another; and
3. Provide for essential, nonenrollment-driven services and activities.

Support categories should:

1. Be limited in number;
2. Identify fundamentally distinct activities; or
3. If within activities, identify appropriate and major differences in operational costs.

Workload measures should:

1. Recognize the differential costs in instruction and other services;
2. Relate, as closely as possible, to changes in the cost of providing the service or activity.

Support Levels should:

1. Reflect demonstrated differences in costs;
2. Provide for the cost of inflation as well as planned workload and program changes; and
3. Provide funding for workload changes at an incremental or marginal rate that accurately reflects the variable, rather than fixed, costs of such changes.

C. Background Information

Members of the advisory committee requested and received information on several issues or topics as background for the study. Following are brief summaries of the background topics considered.

1. Current Practices in Other States

Of forty-seven states surveyed, eighteen negotiate budgets and twenty-nine use formulas to allocate funds to their public community colleges. Some general observations may be made from this preliminary review:

a. Budgets are negotiated most often in small states and where community colleges are organized under a university or higher education board.

b. In those few states where community college budgets are negotiated, the practice is either temporary, for the system as a whole, or heavily dependent on formulas.

c. Formulas typically are used where colleges operate under a department of education (that also includes K-12) or under their own state board.

d. Most states that rely on formulas use just one or two rates. (California uses three.)

e. Roughly equal use is made of credit hours and contact hours as the workload basis for funding instruction.

f. States using multiple rate formulas typically measure and allocate funds separately for instruction and support services.

g. Many states are asking changes to their formulas, though these changes are not always significant.

h. A comparison of California costs with differentials used in other states shows little consistency except for health occupations, which are always high cost.

More specifically, of twenty-nine states which use formulas for the state-level funding of public community colleges, most use just one or two rates:

7	use a single rate
9	use two rates
3	use three rates (California is one of these)
3	use four rates
1	use five rates
6	use more than five rates

These latter six states use allocation rates for instructional programs that range from eight to fifty-eight different categories:

Illinois	8
Washington	13
South Carolina	25
Tennessee	30
Arkansas	35
Texas	58

All these states, except Illinois, calculate and allocate funds for out-of-class "support" services separately. Common workload measures include student headcount, square feet of building space, and numbers of supporting or faculty positions.

2. Current Practice in the UC System

The University of California presents a single request to the State for operation and capital outlay for the nine-campus system. This is a lump-sum request except for a few line-item amounts of special interest to the State. Operating and capital budgets are developed and negotiated somewhat differently.

Changes in funding level of the operating budget are discussed and negotiated in four categories: (1) fixed costs, including adjustments for inflation and merit salary increases; (2) workload; (3) new programs and budget improvements; and (4) salary range adjustments and benefits.

Much of the budget is formula-driven (numbers of students or employees, square feet of space maintained, increase in the consumer price index, etc.). Members of the President's systemwide staff consult at least twice each year with each campus on the budget and planning. Individual campuses are not required to submit formal written budget requests.

The President allocates funds to the campuses after consultation with Chancellors, Vice Presidents, and faculty groups. Generally, the campuses allocate funds on the basis of a combination of enrollment-related workloads and approved campus plans. Each Chancellor has considerable discretion in allocation of general resources.

Incremental financing to offset the impact of inflation on non-salary items is proposed on the basis of two-year projections of price and rate increases, offset by current year increases provided. These projections are based on analysis of trends affecting cost futures of about 50 commodities and services.

The State provides for workload increases on the basis of 17.48:1 student-faculty ratio (at time of report, now 16.61) for both undergraduate and graduate students. For each increment of 17.48 FTE students, the State provides $54,655 as follows:

One Faculty FTE	$21,700	Salary (82/83 Cost)
Fac. Empl. Benefits	7,293	
Related Inst. Support	20,713	
Assoc. Staff Benefits	4,949	
	$54,655	

Also, for each increment of 44.19 undergraduate students, the State provides one teaching assistant FTE at a cost of $14,598 for salary and, for every FTE student (all categories), the State provides $217 to support library reference-circulation staff.

FTE are computed as follows for students:

Undergraduate	15 or more credit hours	1 FTE
Graduate	12 credit hours	1 FTE
Ph.D. Candidate	1 candidate	1 FTE

In the Health Sciences, State support is provided on the basis of varying student-faculty ratios:

Medical students	3.5:1	(1983-84 Budget)
Dentistry students	4:1	" "
Pharmacy students	11:1	" "

The workload for Student Services is headcount. There are two kinds of student fees: registration fees and educational fees. Student fees are assessed in two categories: full-time and part-time.

Registration Fees

Full-time students pay full fee. Part-time students pay one-half of this fee.

Expenditure of funds is determined at the local level in consultation with student representatives.

Educational Fee

All students pay the full fee.

Expenditures require approval of systemwide President. (Much will be expended on the local campus.)

3. Current Practice in CSUC System

The CSUC system is similar to that of the UC system in that a single request goes to the State for operation and capital outlay for the entire system.

The CSUC Budget Formulas and Standards Manual[1] describes the three decisional processes required for development of the Chancellor's budget which is presented to the Board of Trustees and, then, to executive and legislative agencies as follows:

Base Line Budget

This process consists of adjustments to the previous year's appropriations, to provide for mandatory budget increases in staff benefit rates, and cost of salary step adjustments of existing employees. Thus, this process restates last year's operations in terms of this year's prices and is addressed and calculated independently of budget considerations for prospective changes in student enrollments or facilities.

Program Maintenance Proposals

This process identifies those costs that are attributable to workload changes and to accommodate growth in student enrollments and facilities. The calculation of the costs of these workload and growth factors is essentially based upon formulas and standards previously used in support budgets approved by the executive and legislative branches of state government. Thus, this projection reflects all those costs that are required to maintain the quality of the program at approved workload standards.

Program Change Proposals

This process identifies those costs which are not merely mandatory price increases or technical budget adjustments for program size. It presents all costs for new programs, changes in new programs and trade-offs. Thus, this projection defines changes in the real character of the program of the California State University. After campus program managers identify and submit Program Change Proposals, the campuses and the Chancellor's Office review all submissions and select those most crucial in meeting existing and projected program requirements of the California State University.

The CSUC system is similar to that of UC, also, in that it uses detailed formulas for generating appropriations but, for the most part, leaves expenditure decisions at the system campus level.

Currently, the State provides for workload increases on the basis of 17.89 FTE students. FTE are computed for all students on the basis of 15 credit hours.

There are two kinds of student fees in the CSUC system: Student Services Fees and Statewide University Fees.

Student Services Fees

All students pay full fee.

Each campus has a student advisory committee to advise on allocations.

Statewide University Fees

Full-time students pay full fee.

Students enrolled in fewer than 6 units pay about one-third.

4. Current Practice in K-12 System

Basic funding (the principal apportionment) for the elementary and secondary schools of California is based on "revenue limits" per average daily attendance, class, or instructional hour. Revenue limits have evolved historically and politically through processes similar to those shaping community college funding.

For the 1983-84 budget year, base revenue limits per ADA were reported to range from $1,700 to approximately $2,500. As stated on page E-4 of the Governor's Budget for 1983-84, "State general-purpose aid is apportioned among school districts so as to reduce or eliminate significant wealth-related differences in per pupil revenue limits. ...districts with lower-than-average revenue limits per pupil receive larger cost-of-living adjustments than districts with relatively high revenue limits per pupil." The 1983-84 Governor's

Budget proposed a six percent cost-of-living adjustment for district base revenue limits. For low-wealth districts, the Budget also proposed a special adjustment to raise base revenue limits to within $20 of the average district of the same type.

There are several K-12 "program components" which are funded separately from the base revenue. They include "home-to-school transportation", "small district aid", "meals of needy pupils", "regional occupational programs", and others.

As of 1982-83, California apportioned approximately $426 million in State funds to the K-12 system for various categorical programs including: School Improvement, Economic Impact Aid, Instructional materials, Miller-Unruh, Gifted and Talented Education, Educational Technology, Staff Development, Native American Education, Demonstration Programs in Reading and Mathematics, and Vocational Education.

In the 1983-84 Governor's Budget, the administration proposed consolidating allocations for the above ten programs into a Block Grant. Consolidation was proposed to (1) increase the percentage of program expenditures allocated to classroom activity; (2) reduce paper work and administrative functions; (3) increase local discretion to make allocations in response to shifts in needs and priorities; and (4) reduce potential for overlap and duplication between categorical program needs and "basic core" programs.

5. Current and Past Differential Funding in California Community Colleges

For nearly two decades prior to 1973, community colleges were funded at a lower rate (differential funding) for "defined adults". Adults as "defined" were students 21 years of age or older enrolled in ten or fewer class hours.

Currently, the community colleges are funded (for increases or decreases in ADA) at a rate of $1,100 per ADA for noncredit courses (differential funding) and at a rate of $3.25 for each hour of teaching time provided to indentured apprentices (differential funding).

Currently, there are two areas of categorical funding in operational activities of the community colleges: EOPS and Programs for the Handicapped. In addition, support of capital outlay and deferred maintenance may be classified as categorical funding.

6. Matriculation

In July of 1983, Chancellor's Office staff presented to the Board of Governors a preliminary model for a student matriculation process and a plan for refining the model for possible implementation in the community colleges. The model had been developed by a Task Force on Academic Quality. SB 851 (Chapter 565, Statutes of 1983) reinforced the intent to conduct the study by directing the Board to

"...develop a plan for a system of student matriculation" and report "...recommendations for implementation of the matriculation system to the Legislature by April 15, 1984."

The work of the Task Force continued and was supplemented by a cost projection study conducted by MPR Associates of Berkeley.

The model evolved into a plan with the following components:

1. Application for admission
2. Orientation
3. Pre-enrollment assessment and educational planning
4. Academic advisement/counseling and course selection
5. (Post-enrollment) follow-up on student progress, and
6. Institutional research and evaluation

A range of estimated costs for implementation of matriculation in the colleges was provided as a result of the cost projection study. Directors of that study reported, "On the basis of data collected and analyzed so far, we can say fairly confidently that matriculation would cost about $27 million, plus or minus 20 percent." This was based on an estimated total cost for matriculation of $131.9 million, of which an estimated $105.4 million was spent on matriculation-related activities in the colleges during 1982-83.

In the cost projection study, an estimate of one-time data processing costs for implementation of matriculation was put at $44,000 per 10,000 students enrolled, or $52,000 per campus.

A plan for pilot testing of matriculation was approved by the Legislature in 1984 but vetoed by the Governor pending results of the mission studies which are to be conducted.

If an when matriculation is implemented, of special interest to those considering differential funding are the comments on indirect costs included in the cost projection study:

> "It is important not to look at matriculation in isolation when considering the costs, for matriculation will affect other activities and services within the colleges, and these will have cost implications. For example, among the expected benefits of matriculation are improved placement and increased retention. If matriculation improves the placement of students, resources will no longer be wasted on students taking courses for which they are not prepared or which do not meet their needs. Furthermore, any gains matriculation produces in the rates of student retention

> will permit more productive use of staff time and other resources that are now devoted to keeping enrollments up to maintain ADA.
>
> "Matriculation can also be expected to affect the demand for student support services. Improved identification of students with special needs would probably increase the numbers of students referred to handicapped services, for example, or tutoring. This would place additional burdens on these services that they may not be able to absorb without additional resources. On the other hand, improved assessment may diminish the number of students improperly placed in courses and thus actually reduce the demand for tutoring. These indirect costs and benefits of matriculation should be assessed in the early stages of implementation."[2]

7. Programs and Activities Eliminated or Reduced Significantly Within the Past Two Years

The most dramatic reductions in the instructional programs of the California Community Colleges were those imposed by the Legislature in 1982-83. The colleges were directed by the Legislature to cut $30 million from their apportionments for 1982-83 by removing "avocational, recreational, and personal development" courses from the state-funded category.

In March of 1984, the Chancellor's staff reported to the Board of Governors on the courses and the ADA deleted as a result of this legislative directive. The deletions are summarized in Table Two.

Although the college districts report course activities by discipline and classes assigned to each category of the Course Classification System, those data are not complete enough or current enough to trace changes in the program mix of the districts.

It is possible to consider changes in the program mix of the colleges by comparing expenditures by category from year-to-year. This is not a precise measure of program mix but it indicates trends and suggests ways to evaluate perceptions about changes in certain categories, at least on a statewide basis.

General fund expenditures, by activity, for the years 1979-80 through 1982-83, as reported in the annual Fiscal Data Abstracts, were compared. Comparisons are shown on the following tables. The first three tables indicate the percentage that expenditures in each category were of total expenditures. Each of the instructional categories is reported in Table Three. Each support category is shown in Table Four. In Table Five, support categories are aggregated.

TABLE 2
STATEWIDE SUMMARY REPORT
ADA FOR COURSES DELETED BY CATEGORY

CREDIT

Category	Description	No. Courses	% of Deleted Courses	Prorated ADA	% of Deleted ADA
1.	Conv. Foreign Language for Travel	155	3.0%	567	2.5%
2.	Private Pilot Ground School	49	0.9	386	1.7
3.	Ham Radio, Operation, License	12	0.2	29	0.1
4.	Needle Craft, Sewing, and Consumerism	357	6.8	1,273	5.6
5.	Specialized Cooking	156	3.0	457	2.0
6.	Home Gardening, Repair, Woodworking	167	3.2	567	2.5
7.	Pet Selection, Care, Grooming	29	0.5	76	0.3
8.	Auto, Motorcycle, R.V. Maintenance	85	1.6	349	1.5
9.	Personal Finance and Law	278	5.4	1,501	6.6
10.	Personal Development	526	10.1	1,292	5.7
11.	Physical Education and Dance	1,670	31.9	9,701	42.6
12.	Jewelry, Crafts, Calligraphy	444	8.6	2,013	8.8
13.	International Study/Travel	53	1.0	128	0.6
14.	Avocational Photography	58	1.1	398	1.7
15.	Specific Avocational (Coins, Stamps)	0	0	0	0
16.	Genealogy	13	0.2	37	0.2
17.	Real Estate	907	17.4	3,115	13.7
18.	Other (Misclassifications)	269	5.1	866	3.9
		5,228		22,755	

NONCREDIT

Category	Description	No. Courses	% of Deleted Courses	Prorated ADA	% of Deleted ADA
1.	Lecture/Forum, etc.	155	40.1	322	54.0
2.	Relicensure	231	59.9	274	46.0
		386		596	
NONCREDIT AS A PERCENT OF THE TOTAL			6.9%		2.6%

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In Table Three, it may be seen that statewide expenditures for Agriculture and Natural Resources Instructional Activities for 1979-80 were 1.53 percent of total expenditures for all instructional activities. In 1980-81, the percentage was 1.65. In 1981-82, it was 1.53 and in 1982-83, it was 1.49. There was considerable consistency in the percentage of expenditures for individual categories from year-to-year as well as in expenditures in support categories (Tables Four and Five).

When changes in expenditure by category over the four-year period are compared, however, the changes are seen to have had a greater impact on some programs than on others. These comparisons are shown in Tables Six, Seven, and Eight.

Here, it will be seen that the total dollar increase in expenditures for all instructional activities from 1979-80 to 1982-83 was $192,608,069, or an increase of about 28 percent. Expenditures for Agriculture and Natural Resources increased 24 percent. In Computer and Information Sciences, on the other hand, the increase was over 103 percent and in Interdisciplinary Studies the increase was almost 107 percent. Even in Health Occupations, which is perceived by some to have been reduced disproportionately, expenditures increased almost 30 percent, or more than the average increase for all instructional activities. The biggest losers among support categories were Instructional Services which increased only 15 percent over the four years, Other Student Services which increased only 13.4 percent and Planning and Policy Making which went down almost two percent while the average for all activities was increasing over 25 percent. Expenditures in Maintenance and Operations, also perceived by many to have been at a special disadvantage in recent years, increased about 27 percent, or somewhat more than the average for all categories.

While these figures do not indicate what may have happened on individual campuses, they do suggest that the colleges, as a statewide system, may have adapted more successfully than is reported to changing needs in instructional programs. The figures indicate, also, that expenditures for some support categories, most notably Instructional and Student Support Services and Planning and Policy Making, did not keep pace.

TABLE 3
SUMMARY OF STATEWIDE GENERAL FUND EXPENDITURES
INSTRUCTIONAL ACTIVITIES (0100 - 5300)
1979-80 THROUGH 1982-83

		Total Statewide Expenditures Objects 1000-6000			
Instructional Category		1979-80	1980-81	1981-82	1982-83
Agriculture and Natural Resources (0100)	Expenditure % of 0100-5300	10,460,603 .0153	13,305,301 0165	13,383,507 0153	12,998,744 .0149
Architecture and Environ. Design (0200)	Expenditure % of 0100-5300	2,889,860 0042	3,535,082 0044	3,849,505 .0044	3,954,538 .0045
Biological Sciences (0400)	Expenditure % of 0100-5300	28,082,740 .0423	32,330,473 0401	35,632,353 .0407	35,691,677 0408
Business and Management (0500)	Expenditure % of 0100-5300	66,854,135 .0980	78,153,993 .0970	83,085,669 .0949	80,357,734 .0918
Communications (0600)	Expenditure % of 0100-5300	8,521,598 .0125	9,474,980 .0118	10,620,326 .0121	11,019,114 .0126
Computer and Info. Sciences (0700)	Expenditure % of 0100-5300	11,787,981 .0173	15,430,977 .0192	19,809,791 .0226	23,961,224 .0274
Education (0800)	Expenditure % of 0100-5300	70,166,869 .1028	85,008,509 .1055	89,641,982 .1023	84,272,918 .0963
Engineering and Related Fields (0900)	Expenditure % of 0100-5300	56,123,330 .0823	68,009,755 .0844	76,269,802 .0871	80,939,590 .0925
Fine and Applied Arts (1000)	Expenditure % of 0100-5300	68,716,247 .1007	80,723,161 .1002	86,305,699 .0985	81,790,534 .0935
Foreign Language (1100)	Expenditure % of 0100-5300	17,955,342 .0263	20,926,166 .0260	21,614,498 .0247	21,366,308 .0244
Health Occupations (1200)	Expenditure % of 0100-5300	44,942,719 .0659	51,720,842 .0642	65,323,034 .0746	58,325,961 .0667
Consumer Education & Home Economics (1300)	Expenditure % of 0100-5300	17,479,432 .0246	20,934,994 .0260	21,828,535 .0249	21,427,457 .0245
Law (1400)	Expenditure % of 0100-5300	963,167 .0014	1,679,751 .0021	1,231,584 .0014	1,469,280 .0017
Humanities (Letters) (1500)	Expenditure % of 0100-5300	76,381,591 .1119	81,628,444 .1013	90,376,229 .1032	91,751,208 .1049
Library Science (1600)	Expenditure % of 0100-5300	435,736 .0006	424,317 .0005	497,068 .0006	550,173 .0006
Mathematics (1700)	Expenditure % of 0100-5300	32,399,794 .0475	36,158,104 .0449	41,705,998 .0476	42,262,074 .0483
Military Science (1800)	Expenditure % of 0100-5300	6,775 -	874,879 .0011	- -	1,087 -
Physical Sciences (1900)	Expenditure % of 0100-5300	36,010,202 .0528	40,796,996 .0506	43,835,417 .0500	43,513,929 .0497
Psychology (2000)	Expenditure % of 0100-5300	18,929,325 .0277	21,242,140 .0264	22,704,036 .0259	21,843,827 .0250
Public Affairs and Services (2100)	Expenditure % of 0100-5300	14,388,073 .0211	19,151,825 .0238	21,625,840 .0247	21,266,922 .0243
Social Sciences (2200)	Expenditure % of 0100-5300	53,523,803 .0784	59,317,064 .0736	63,155,481 .0721	63,163,123 .0727
Commercial Services (3000)	Expenditure % of 0100-5300	8,713,989 .0128	10,988,061 .0136	12,363,302 .0141	10,174,855 .0116
Interdisciplinary Studies (4900)	Expenditure % of 0100-5300	24,359,422 .0357	39,411,011 .0489	46,280,745 .0528	50,359,793 .0576
Apprenticeship (5300)	Expenditure % of 0100-5300	11,417,106 .0167	14,246,786 .0177	12,859,131 .0147	10,450,145 .0119
R.I. (25.5)	Expenditure % of 0100-5300				1,555,693 .0018
TOTAL 0100-5300		682,309,839	805,471,611	875,939,232	874,917,908

SOURCE: Table VIII-1, Fiscal Data Abstracts

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TABLE 4
SUMMARY OF STATEWIDE GENERAL FUND EXPENDITURES
ACTIVITIES 0100 THROUGH 6700
1978-79 THROUGH 1982-83

Activity		Total Expenditures Statewide Objects 1000-6000			
		1979-80	1980-81	1981-82	1982-83
Instructional and Instructional Support Activities (0100-6000)	Expenditures % of 0100-6700	761,146,375 .6076	889,247,284 .6134	968,649,014 .6127	971,293,346 .6179
Instructional Services and Student Services Activities (6100/6200/6300/6400)	Expenditures % of 6700	171,588,683 .1370	196,230,034 .1354	207,614,557 .1312	203,491,626 .1295
Maintenance and Operations (6500)	Expenditures % of 0100-6700	148,533,075 .1186	173,430,064 .1196	190,065,888 .1201	188,763,244 .1201
Planning, Policy, General Services (6600/6700)	Expenditures % of 0100-6700	171,516,140 .1369	190,776,488 .1316	216,236,419 .1366	208,319,523 .1325
TOTAL 0100-6700		1,252,784,273	1,449,683,870	1,582,565,878	1,571,867,739
Community Services (6800)	Expenditures % of 6800-7000 % of 0100-7000	26,211,035 .2628 .0194	31,731,023 .2773 .0203	33,790,940 .2920 .0199	32,118,584 .2596 .0189
TOTAL 6800-7000		99,752,190	114,438,980	115,707,673	123,712,414
TOTAL 0100-7000		1,352,536,463	1,564,122,850	1,698,273,551	1,695,580,153

SOURCE: Table VIII-1, Fiscal Data Abstracts

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TABLE 5
SUMMARY OF STATEWIDE GENERAL FUND EXPENDITURES
ACTIVITIES 0100 THROUGH 6700 AGGREGATED
1979-80 THROUGH 1982-83

		Total Expenditures Statewide Objects 1000-6000			
Activity		1979-80	1980-81	1981-82	1982-83
INSTRUCTIONAL ACTIVITIES (0100-5300)	Expenditures % of 0100-6700	682,309,839 .5446	805,471,611 .5556	875,939,232 .5535	874,917,908 .5566
SUPPORT ACTIVITIES (6000-6700)					
Instructional Support & Services (6000/6100)	Expenditures % of 0100-6700	134,884,531 .1077	148,005,246 .1021	160,698,558 .1016	160,927,252 .1024
Student Services (6200/6300/6400)	Expenditures % of 0100-6700	115,540,688 .0922	132,000,461 .0911	139,626,332 .0882	138,939,812 .0884
Maintenance and Operations (6500)	Expenditures % of 0100-6700	148,533,075 .1186	173,430,064 .1196	190,065,888 .1201	188,763,244 .1201
Planning, Policy, General Services (6600/6700)	Expenditures % of 0100-6700	171,516,140 .1369	190,776,488 .1316	216,236,419 .1366	208,319,523 .1325
SUBTOTAL 6000-6700	Expenditures % of 0100-6700	570,474,434 .4554	644,212,259 .4444	706,626,646 .4465	696,949,831 .4434
TOTAL 0100-6700		1,252,784,273	1,449,683,870	1,582,565,878	1,571,867,739
Community Services (6800)	Expenditures % of 6800-7000 % of 0100-7000	26,211,035 .2628 .0194	31,731,023 .2773 .0203	33,790,940 .2920 .0199	32,118,584 .2596 .0189
TOTAL 6800-7000		99,752,190	114,438,980	115,707,673	123,712,414
TOTAL 0100-7000		1,352,536,463	1,564,122,850	1,698,273,551	1,695,580,153

SOURCE: Table VIII-1, Fiscal Data Abstracts

TABLE 6
CHANGES IN STATEWIDE GENERAL FUND EXPENDITURES
INSTRUCTIONAL ACTIVITIES (0100-5300)
1979-80 THROUGH 1982-83

	1979-80	1982-83	Increase/ (Decrease) in Dollars	Percent of Increase/ (Decrease)
Ag. & Nat. Resources (0100)	10,460,603	12,998,744	2,538,141	.2426
Arch. & Env. Design (0200)	2,889,860	3,954,538	1,064,678	.3684
Biol. Sciences (0400)	28,882,740	35,691,677	6,808,937	.2357
Bus. and Management (0500)	66,854,135	80,357,734	13,503,599	.2020
Communications (0600)	8,521,598	11,019,114	2,497,516	.2931
Computer & Info. Sciences (0700)	11,787,981	23,961,224	12,173,243	1.0327
Education (0800)	70,166,869	84,272,918	14,106,049	.2010
Engin. & Related Fields (0900)	56,123,330	80,939,590	24,816,260	.4422
Fine and Applied Arts (1000)	68,716,247	81,790,534	13,074,287	.1903
Foreign Language (1100)	17,955,342	21,366,308	3,410,966	.1900
Health Occupations (1200)	44,942,719	58,325,961	13,383,242	.2978
Cons. Educ. & Home Econ. (1300)	17,479,432	21,427,457	3,948,025	.2259
Law (1400)	963,167	1,469,280	506,113	.5255
Humanities (Letters) (1500)	76,381,591	91,751,208	15,369,617	.2012
Library Science (1600)	435,736	550,173	114,437	.2626
Mathematics (1700)	32,399,794	42,262,074	9,862,280	.3044
Military Science (1800)	6,775	1,087	(5,688)	(.8396)
Physical Sciences (1900)	36,010,202	43,513,929	7,503,727	.2084
Psychology (2000)	18,929,325	21,843,827	2,914,502	.1540
Public Aff. & Services (2100)	14,388,073	21,266,922	6,878,849	.4781
Social Sciences (2200)	53,523,803	63,613,123	10,089,320	.1885
Commercial Services (2300)	8,713,989	10,174,855	1,460,866	.1676
Interdisciplinary Studies (4900)	24,359,422	50,359,793	26,000,371	1.0674
Apprenticeship (5300)	11,417,106	10,450,145	(966,961)	(.0847)
R.I. (25.5)		1,555,693	1,555,693	--
TOTAL (0100-5300)	682,309,839	874,917,908	192,608,069	.2823

SOURCE: Table VIII-1, FISCAL DATA ABSTRACTS

TABLE 7
CHANGES IN STATEWIDE GENERAL FUND EXPENDITURES
ACTIVITIES 0100 THROUGH 6700
1979-80 THROUGH 1982-83

	1979-80	1982-83	Increase/ (Decrease) in Dollars	Percent of Increase/ (Decrease)
Inst. Activities (0100-5300)	682,309,839	874,917,908	192,608,069	.2823
Inst. Support (6000)	78,836,536	96,375,438	17,538,902	.2225
Inst. Services (6100)	56,047,995	64,551,814	8,503,819	.1517
Adm. and Records (6200)	26,446,786	34,067,991	7,621,205	.2882
Counsel. and Guidance (6300)	47,388,003	57,570,208	10,182,205	.2149
Other Student Services (6400)	41,705,899	47,301,633	5,595,734	.1342
Maint. and Operations (6500)	148,533,075	188,763,244	40,230,169	.2708
Planning & Policy Making (6600)	43,693,175	42,949,189	(743,986)	(.0170)
Gen. Institutional Svcs. (6700)	127,822,965	165,370,334	37,547,369	.2937
TOTAL (0100-6700)	1,252,784,273	1,571,867,739	319,083,466	.2547

SOURCE: Table VIII-1, FISCAL DATA ABSTRACTS

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TABLE 8
CHANGES IN STATEWIDE GENERAL FUND EXPENDITURES ACTIVITIES 0100 THROUGH 6700 (AGGREGATED) 1979-80 THROUGH 1982-83

	1979-80	1982-83	Increase in Dollars	Percent of Increase
Instructional Activities (0100-5300)	682,309,839	874,917,908	192,608,069	.2823
Instructional and Support Services (6000-6100)	134,884,531	160,927,252	26,042,721	.1931
Student Services (6200, 6300, 6400)	115,540,688	138,939,812	23,399,124	.2025
Maintenance and Operations (6500)	148,533,075	188,763,244	40,230,169	.2708
Planning/Policy/Gen. Svcs. (6600-6700)	171,516,140	208,319,523	36,803,383	.2146
TOTAL (0100-6700)	1,252,784,273	1,571,867,739	319,083,466	.2547

SOURCE: Table VIII-1, FISCAL DATA ABSTRACTS

8. Marginal Costing in Higher Education

This brief summary view of marginal costing is based on a synopsis by John Augenblick and Gorden Van de Water of Marginal Costing Techniques for Higher Education by Allan and Brinkman.[3]

Marginal Costing, as defined in economics, is the change in total cost associated with producing one additional unit of output. Since the bulk of the unrestricted revenue of higher education is tied to students (either through state apportionment or tuition and fees), the cost of an additional student is probably the most widely used type of marginal cost in higher education.

Higher education currently faces annual enrollment declines for the next decade. The implications of declining enrollment for costing are most likely to be found in two areas: funding (such as state appropriations and indirect-cost recovery) and pricing (such as tuition levels and internal charges). Costing in these two areas typically has focused on average cost units. There is growing concern, however, about relying entirely on average costs in a declining enrollment situation.

The concern is that the actual, marginal savings attributable to enrolling fewer students will be less than the estimated savings calculated on the basis of average historical costs. If so, then reducing resources at the average cost rate may induce financial stress on the institution. At the very least, it does seem likely that expenditures cannot be reduced at the same rate as enrollments without reversing the building process of previous decades. Such a reversal could entail reducing quality, eliminating programs, decreasing access, and degrading the economic position of postsecondary education employees.

Approaches to Marginal Costing

There are three basic methods used in estimation of marginal costs. These are the regression method, the fixed-and-variable cost method, and the incremental cost method.

The Regression Method. The regression technique is widely used for estimating marginal costs -- especially in business and industrial settings. It is adaptable to various units of analysis, can handle a large number of observations, and can readily provide a regional or national perspective on cost behavior. In principle, the technique is relatively simple. In practice, using actual data, subtleties of interpretation and representation abound, and a variety of estimation problems occur.

The Fixed-and-Variable Cost Method. The fixed-and-variable cost method involves classifying all of the expenditures of an institution or other organizational units as either fixed or variable. Once costs have been classified this way, the marginal cost analysis is relatively simple: the estimate of marginal cost is simply the average variable cost. Fixed costs are excluded from the analysis.

In this approach, the classification of costs is primarily determined by policy. Empirical data are used to support this effort and to measure the implications of particular policy decisions, but the fixed or variable nature of costs is not determined empirically.

The Incremental Cost Method. The incremental cost method estimates directly the cost behavior related to changes in volume at a single institution or its subunit. Each annual change is assessed to determine if it is most appropriately associated with changes in volume, with changes in the environment, or with specific decision factors. Cost differentials associated with environmental or decision factors are removed from the analysis, and the residual is divided by the change in volume (that is, in the number of students, credit hours, and so on). The result of this calculation can be used as an estimate of the marginal costs of additional students within that range of volume changes.

Use of Marginal Cost Approaches in Higher Education

Pure marginal cost approaches in higher education because of the methodological difficulties inherent in applying the techniques. In general, the research shows that empirical techniques are frought with problems and can best be used as guidelines for rough estimates of cost behavior.

Some places currently using or developing marginal cost concepts are:

(1) Missouri. In Missouri, state budgeting processes provide 90 percent of average costs to those institutions whose enrollments are increasing and 30 percent of average costs to those institutions whose enrollments are declining.

(2) Wisconsin. For the University of Wisconsin system, a phased approach to a fixed-and-variable cost method is being implemented in preparation for expected enrollment declines. Under this approach only variable costs are reduced when enrollment declines.

(3) Indiana. In Indiana, considerable analysis of marginal cost techniques has been undertaken. Marginal cost percentages are currently employed in the budget process and analysis of their effects is underway.

(4) California. In the community college sector, the marginal cost concept is utilized to fund enrollments that are below or above budgeted ADA levels. Such enrollments are funded at two-thirds of the average cost.

Other states employ policies that are simpler but are designed to recognize the marginal cost concept. New Mexico and Minnesota, for example, use a three-year enrollment average to dampen the immediate effects of enrollment declines. Pennsylvania employs a "hold harmless" provision for its institutions experiencing enrollment loss.

Tennessee and Florida use a "corridor" or "buffer" approach that keeps funding constant as long as enrollment fluctuations remain within prescribed pre-specified boundaries. Virginia makes use of a "floor" concept that provides a minimum level of funding for all institutions regardless of size.

All of these approaches essentially recognize that the sole use of average costs is a potentially damanging approach when enrollments are expected to decline.

D. Research Questions

A general plan for the study was approved. It was built around eight research questions, most of which are specified in the language of the legislation. The research questions are listed below with basic procedures to be followed and criteria to be met.

QUESTION #1: What support categories should be used in a differential funding system for California Community Colleges?

Procedures:

A. Identify a variety of categories which might be used by reference to other systems and other states, to other studies, and to current literature.

B. Analyze various categories in terms of available cost data.

C. Determine which categories or combination of categories best meet the following criteria:

1. Categories are fundamentally distinct.
2. Categories are limited in number.
3. Categories reflect, as accurately as possible, important differences in operational costs from the standpoint of State policy.
4. Categories provide for essential services and activities whether or not the service or activity generates ADA.

QUESTION #2: What workload measures should be used for each cost category based on each measure's relation to (A) cost of delivering the service, (B) fiscal incentives, and (C) the cost of collection and verification?

Procedures:

Test various workload measures for each recommended category against available cost data for the most recent year and for an earlier (more normal) year to determine which best meet the following criteria:

1. Workload measures are appropriate for the program or activity.

2. Workload measures recognize major differences in costs in instruction and other services.

3. Workload measures relate, as closely as possible, to changes in the cost of providing the service.

4. Workload measures do not add unduly to collection and verification costs.

QUESTION #3: What support levels should be used for each category based on an analysis of fixed and variable costs, the impact of inflation and other factors that influence the adequacy of these support levels?

Procedures:

A. From existing cost data, if possible, or from a representative sample of costs in California's community colleges, determine an appropriate range of (1) start-up costs, (2) ongoing costs, and (3) variable costs for each unit or increment of workload for each category.

B. Identify variables (college size, urban/rural setting, etc.) which should be accommodated in program and activity support levels.

C. Recommend procedures for inflationary adjustments in support levels.

D. Recommend support levels for each category which best meet the following criteria:

   1. Support levels reflect demonstrated major differences in costs which are likely to influence decisions about resource allocation.

   2. Support levels provide for the cost of inflation as well as planned workload and program changes.

   3. Support levels provide funding for workload changes at an incremental or marginal rate that accurately reflects the variable, rather than fixed, costs of such changes.

QUESTION #4: What would be the impact of recommended changes on individual district budgets?

Procedures:

A. With simulation models apply proposed changes to each district budget for the most recent year and for the earlier year identified in Question 2 above.

B. Determine the impact of proposed changes on each district budget.

QUESTION #5: How should student services be integrated as a component of district workload standards?

Procedures:

A. Identify activities related to student services as they have been considered in response to each of the the above questions.

B. In consultation with staff, advisory committee, and contractor preparing recommendations for implementing student matriculation in the community colleges, recommend procedures for integrating student services.

QUESTION #6: What would be the estimated cost to implement and operate the proposed differential funding system?

Procedures:

A. In consultation with staff, advisory committee, and district personnel, identify and estimate the cost of each element of change-over with special attention to the cost of collection and verification of data.

B. Prepare a summary analysis of the total statewide cost to implement a differential funding system.

C. Prepare an estimate of increase in annual statewide costs to operate a differential funding system.

QUESTION #7: What would be the advantages and what would be the disadvantages of a differential funding system in the California Community Colleges?

Procedures:

A. Identify and comment on perceived and anticipated advantages of a differential funding system.

B. Identify and comment on the perceived and anticipated disadvantages of a differential funding system.

QUESTION #8: How should differential funding be implemented in the California Community Colleges?

Procedures:

A. Evaluate all information and recommendations resulting from prior elements of the study to identify (1) elements to be considered, (2) procedures to be modified, and (3) problems to be solved.

B. Develop a plan for implementation which meets the following criteria:

1. Plan provides incentives for efficiency consistent with stated goals and objectives for college operation.

2. Plan provides for maximum flexibility at the local district level for adaptation to local conditions and emerging needs.

3. Plan avoids shifting of large amounts of funding from one district to another without adequate time and allowance for phasing.

4. Plan avoids undue collection and verification costs.

FOOTNOTES, CHAPTER TWO

1. Budget Formulas and Standards Manual - Revision No. 14, Office of the Chancellor, The California State University, Long Beach, California, November 12, 1982

2. Hoachlander, E. Gareth, Susan P. Choy and Charles S. Benson, Community College Matriculation Cost Study, MPR Associates, Inc., Berkeley, California, March, 1984. (p. 32)

3. Allen, Richard and Paul Brinkman, Marginal Costing Techniques for Higher Education, National Center for Higher Education Management Systems: Boulder, CO. 1983.

CHAPTER 3.

DIFFERENTIAL COST FUNDING

CHAPTER 3. DIFFERENTIAL COST FUNDING

A. Funding Based on Differential Costs

Differential funding has been described by Wattenbarger and Heck as "a procedure often referred to as cost-based funding."[1] That description requires amplification. In such a system, financial support is related to the costs of providing educational programs and services. Programs and services are identified by categories. Unit costs are determined for each category. Variables which influence costs (i.e., college size, class size, mode of program delivery) are tested for their impact upon costs. Workload measures (i.e., students enrolled, square feet maintained) are provided for each category and support levels are provided for each unit of workload in the category based upon formulas which take into account the variables.

Often such a system can become extremely complex with many categories each with a different level of funding. Florida's plan, which was described by Breneman and Nelson in 1981 as the most highly-developed cost-based system in operation at the time, had at least 31 distinct cost categories among instructional disciplines. (Florida has since given up its cost-based system.)

Among the advantages of differential funding or cost-based funding described by Breneman and Nelson in 1981 were advantages related to incentives.

> "There is a growing interest in many states in the incentive effects of particular forms of state aid and the impact of budgetary formulas on costs and performance. Legislators often overlook the fact that a budgetary formula is also an incentive system, a set of prices that will be paid for rendering particular services. For example, formulas that reward enrollment increases with payments based on average rather than marginal costs will give rise to extensive recruiting efforts, since the colleges may make money on additional enrollments. States that do not differentiate their payments according to program cost differences, paying instead a fixed sum per student regardless of program, have set in place (perhaps unintentionally) powerful incentives for a college to concentrate on low-cost programs. And, when a state seeks to pay for some courses of study and not for others, it should not be surprised when colleges redefine courses into the favored categories."[2]

Breneman and Nelson also warned that there is no single, ideal plan for financing community colleges. They warned of some of the disadvantages of differential or cost-based funding, as follows:

> "Like equalization, cost-based program funding presents policy makers with issues of complexity and costs, for such plans are inherently more complex than simple unit

> rate formulas, add substantially to the data collection and information requirements of the system, and may increase total outlays as well."[3]

The potential strengths and weaknesses of differential funding were examined in greater detail during the course of this study. Results are reported in a later section.

On balance, these authors found cost-based funding to be an improvement;

> "In evaluating cost-based systems, we concur with Garm's judgment that they are a decided improvement over simple unit rate or flat grant formulas, but that much of the benefit (and simplicity) can be gained by limiting the cost categories to five or ten in number."[4]

B. State and Local Interests

Much recent analysis of community college finance theory and finance systems has been aimed at achieving a proper balance between state and local interests.

Prior to passage of Proposition 13 in 1978, the California Community Colleges received over half of their support (statewide) from the local property tax. Locally-elected boards of trustees had authority, within prescribed limits, to adjust the tax base and increase revenues in response to expressed or anticipated local needs and interests. Over the years, a fairly stable balance was thought to have been achieved between state and local interests. That balance may have been appropriate when there was societal concensus on increasing access and diversifying services and when the economic situation supported expanding horizons. However, the state/local balance of interests became precarious as a result of significant changes in the economic situation and as enrollment declines were projected and, later, realized. The balance was disrupted dramatically in California with the passage of Proposition 13. A new balance has not yet been achieved. Achievement of a proper balance between state and local interests should be an objective of any new finance system.

Basic to the achievement of balance between state and local interests in finance is agreement on the mission to be served by the community colleges. Breneman and Nelson drew the following conclusion as a result of their national study of community college finance:

> "...we have observed that disputes over financing policies and procedures often disguise fundamental disagreements over the purpose, mission, and priorities of community colleges; much of the criticism of current financing formulas, therefore, is misdirected, because the problems are substantive, not technical."[5]

California is not alone in its uncertainty about the mission of the community college. As Breneman and Nelson noted:

> "Of particular interest were the differences in perspective and priorities we encountered between state-level officials and community college leaders. State officials with broad planning and budgeting responsibility for higher education understandably tend to view community colleges within the context of higher education, while community college officials tend to emphasize the unique features that separate their colleges from other educational institutions."[6]

This uncertainty about mission in California resulted, during the 1984 legislative session, in the drafting and signing of legislation calling for a review not only of the community college mission but also of the Master Plan for Higher Education. Flexibility to adapt to change in mission should be an objective of any new finance system.

Lyman A. Glenny and William H. Pickens suggest that difference in perspective and priorities between state-level officials and community college leaders might be described as two fundamental sets of tensions "fiscal accountability vs. institutional autonomy; and equity vs. diversity."[7] Taxpayers and elected officials seek increased state control through funding formulas and budget constraints (accountability). College personnel seek flexibility and discretion in the expenditure of the State allocation (autonomy). Equity and diversity conflict as one side favors providing equity by removing barriers to educational opportunities through formula funding and line-item controls, while the other side opposes uniformity, arguing that greater State control destroys diversity on the campus.

Glenny and Pickens report, also, a lessening of confidence in the result of detailed funding formulas and rigid budget controls but they warn that the trend toward autonomy requires a new definition of accountability. They prefer not to think of accountability in terms of rigid formulas and line-item controls but rather in terms of support categories and workload measures, as well as mission, ongoing policy review, and an adequate base for funding. In this view, accountability involves:

> "a clear statement by the State of its goals and expectations for institutions; some collective understanding of tangible benchmarks so that progress can be evaluated; An effort to establish an adequate 'base' for the institutions, coupled with an insistence that emergent needs should be funded through reallocation; Some policy areas and indicators that are reviewed annually; tuition levels, student financial aid, enrollment levels and their mixture, the adequacy of overall support for the mission of each institution; progress on special programs (such as categorical funding for deferred maintenance."[8]

The Glenny and Pickens view of accountability leads Holsinger to the identification of four basic principles of community college finance: (1) accountability, (2) autonomy, (3) diversity, and (4) equity.

Accountability

a. Support categories and workload measures to provide a fit between the funding and the cost of programs;

b. Measures of minimum adequacy and academic quality;

c. A clear statement of mission;

d. An ongoing policy review of tuition, financial aids, enrollments, base of funding, etc.

Autonomy

a. Local funding in conjunction with State apportionment

b. Separate financing for community colleges

c. Flexibility in the expenditure of funds at the district level

Diversity

a. Enhance a wide diversity in curriculum which includes transfer education, vocational education, liberal arts, and community services

b. Promote service to community needs

Equity

a. Open access

b. Low (or no) tuition with an aggressive financial aids program

c. Formulas for equalization between districts[8]

Breaking down the dichotomies of accountability/autonomy and equity/diversity should be an objective of any new finance system.

C. Advantages and Disadvantages

In enacting SB 851, the Legislature did not call for an evaluation of differential funding nor for a comparison of finance systems. It required that a system of differential funding be developed. This study is directed to that end. However, the Study Advisory Committee recognized that any system of finance has strengths and weaknesses and must be applied in the real fiscal and political worlds. It understood that most finance plans are combinations of elements from more than one system put together in ways that best meet State and local objectives. It was aware that California has a complex, dynamic community college system with a unique history, different in many essential ways from any other system of education in any other state. The committee determined, therefore, that one of the research questions should be related to the advantages and the disadvantages of a differential funding system in the California Community Colleges; the goal being to maximize potential strengths and minimize potential weaknesses.

Major Potential Strengths

1. Can Increase Match Between Funding and Programs Offered. This allows funding to be academically neutral since it does not favor low-cost over high-cost programs. It gives both funders and recipients a better understanding of what services are being provided and what costs are associated with providing the services.

   It is not possible with current data to trace, with confidence, changes in program mix among high-cost and low-cost programs in the California Community Colleges. A review of changes in the percentage of expenditures from 1979-80 to 1982-83 indicates little change in the percent of expenditures (statewide) for most instructional categories. Current data do not permit analysis of subcategories. The review described here and in greater detail in Chapter 2, was of broad controlling account categories. As Breneman and Nelson have indicated, however, apportionments based on a fixed sum sets in place powerful incentives to concentrate on low-cost programs.

   During periods of declining enrollment and declining financial support, academic decision-making should be as objective as possible. A separation of academic decisions from funding decisions would contribute to objective academic decision-making.

   To maximize this potential strength, a limited number of fundamentally distinct activities should be identified for which there are demonstrated and major differences in operational costs.

2. Can Recognize Essential Services Other Than Instruction. Through this procedure major categories of activity, including instruction, can be identified and observers and participants can become more aware of the contributions and the costs of each activity within the educational environment.

   Postsecondary education is a complex enterprise. The California Community Colleges are as complex and as diverse as any system anywhere. In Fall 1982, the colleges served 1,291,544 individual students with a wide variety of characteristics, needs and interests. Those students were served in an environment of constantly changing variables in a broad range of activities which were conducted, in 1982-83, in 31,098,048 assignable square feet of space.

   Because they serve individual students in unique communities, the California Community Colleges should have the maximum possible flexibility in allocating their resources. However, an appropriate and rational balance among instructional and support activities can be determined only if major categories of activity are identified and recognized. An appropriate balance of activities can be maintained only if adequate funding is provided for each activity.

To maximize this potential strength, essential support activities, as well as instructional activities, should be identified and should be supported in a manner related to their costs.

3. Can Utilize Different Workload Measures for Different Activities. This permits the application of different measures of workload to different activities. This can result in more precise determination of the level of service needed. Support can be related more precisely to the cost of the activity.

In the California Community Colleges, the single measure of workload is ADA (average daily attendance). ADA is a measure of attendance. It is Associated usually with elementary/secondary education and historically has been used for the California Community Colleges because of the origin of many of the colleges as extensions of local school districts. Attendance or enrollment is a less precise measure of student services than it is of instruction. Student services are provided to individual students without regard to the hours of attendance or enrollment. Attendance or enrollment is even less precise as a measure of general institutional support. Every institution, regardless of enrollment, must have a basic core of support services. Attendance or enrollment is least precise of all as a measure of workload in maintenance and operation of the plant. If separately identified, support categories can be assigned workload measures more precisely related to the service rendered. Variables more closely related to the service can be considered as support levels are developed for each unit of workload. Properly implemented, differential funding can provide a continuing base level of support for essential services without undue reference to enrollment fluctuations.

To maximize this potential strength, separate workload measures should be selected for each major category of service. Measures selected should be related to the needs and the costs of the specific activity and should be as predictive of costs, as simple, and as understandable as possible.

4. Can Reduce Impact of Enrollment Fluctuation and Need for Aggressive Recruiting. When workload measures are related closely to separately identified activities, it can be seen that workload does not fluctuate in direct response to fluctuations in enrollment. It is possible to reduce the impact of enrollment changes on the support activity. This can reduce, somewhat at least, the need for recruiting.

At various times and to varying degrees, funding systems for the California Community Colleges have provided powerful incentives for the colleges to recruit for more enrollment. Such an incentive exists at present. Simply stated, unless in the current year (1984-85) college districts reach enrollment levels of 1982-83, apportionment will be reduced at the marginal rate of 2/3rds of the allowance per ADA for each ADA under the 1982-83 level. Tentative Fall 1984 enrollment reports indicate that enrollments statewide are about ten percent below those of 1982-83. In some districts -- even large districts -- enrollments may be down from 1982-83 levels by as much as 20 percent. Even at an incremental loss of only 2/3rds, the impact of such a decline will be enormous. There are no mechanisms by which colleges can absorb that kind of loss without reducing the quality of its services immediately and the potential quality of its services for years to come. Faced with that possibility, local districts are compelled to engage in aggressive marketing and recruiting. This is an example of local interests in conflict with State interests. Except for local survival, it is difficult to believe that recruiting and aggressive marketing are in the best interest of either the State or the local district at this time. It might be argued that both State and local interests would be served better during this period of declining enrollments by seeking to protect the basic strengths of the colleges and improving the quality of services rather than seeking to increase the quantity of service. Properly implemented, differential funding can provide relatively stable and predictable support categories which, in turn, will reduce the need for recruiting and marketing.

To maximize this potential strength, funding levels for support categories should be related to workload measures which are more stable than attendance or full-time equivalent enrollment. Incremental adjustments should be related to changes in these units of workload. The result will be much closer to zero times each reduction of ADA than to 2/3rds times each reduction in ADA.

5. Can Aid in Cost Comparison. This procedure allows for easy comparison of costs among districts.

The California Community Colleges function under the direct control of seventy local district governing boards. Local trustees no longer control income or revenues but they do control budgets and expenditures. Each district makes its own decisions about allocation of resources. Historically, the choices have been as varied as the districts with the result that there are wide differences among districts in the amount of resources allocated to given activities. Budgeting and expenditure reporting procedures vary almost as much as expenditures. This makes comparison of activity costs from district-to-district difficult and, in some cases, impossible. Yet, districts do make comparisons and express the need to make other comparisons. Although not bound by the practices of others, no district can operate in a vacuum. Comparisons serve as guidelines and as a form of evaluation. In many cases, local trustees make far-reaching decisions on the basis of comparisons with other districts. This is particularly true of decisions regarding personnel expenditures. Since there is not a standard statewide data base, various community college groups may gather their own data and make their own comparisons. Since the criteria for these data may vary, misunderstandings are likely to develop. The California Community College Trustees conduct an annual salary and benefits survey. The Association of Community College Administrators sponsors an annual "Presidents' Load Study." Major teacher organizations may do studies and make comparisons of their own. These activities will go on regardless of whether or not there is a differential funding system but a standard, integrated data base and reliable unit cost information could provide significant improvement in communication among various community college interests. Differences will exist among interest groups but it would be more productive to spend energy resolving differences over issues than to spend energy resolving differences over what the facts may be. Properly implemented, a differential funding system can provide accurate unit cost data and make available to all interested parties information on which to make valid comparisons.

To maximize this potential strength, a comprehensive, integrated data base should be developed for the California Community Colleges. Accurate unit cost information should be developed and made available to all decision-makers.

6. Can Aid in Planning. Because support formulas are known, campus decision-makers can plan more accurately to meet the needs of their local service area.

Funding mechanisms for the California Community Colleges have changed almost annually since 1973 as efforts have been made to adapt to enrollment fluctuations and declining revenue per student. Rational planning has not been possible. Both the State and the districts have had a special problem with enrollment fluctuations. Prior to imposition of the enrollment "caps" the State could not make accurate estimates of its commitment to the community colleges. Funding was almost open-ended. Various measures have been taken as a result. Total State expenditures have been fixed. Class offerings have been reduced. Subject areas have been eliminated. Base revenues have been established. These frequent changes have required adaptation at the local level to new rules and procedures nearly every year.

A period of stability and predictability is needed if the colleges are to do serious and meaningful planning. Greater stability may be achieved with any funding system left in place for a period of time. Funding legislation enacted in 1983 (SB 851), if fully funded, can provide a measure of stability through 1986-87. Further stability could be achieved with a system in which activities are identified according to their relative costs and support formulas are established for each activity. With known formulas, planning can be related more effectively to specific activities and can be adjusted to the specific needs of a local district.

To maximize this potential strength, support levels should be established which reflect demonstrated differences in costs; provide for the cost of inflation as well as planned workload changes; and provide funding for workload changes at an incremental rate which accurately reflects the variable costs of such changes. Data supporting the finance system should be from the same integrated data base as that used in planning. Development and implementation of the finance system should be coordinated with the current statewide activity in comprehensive planning.

7. Can Contribute to Equity. A formula system treats all colleges by the same rules thus eliminating support variations based on local district wealth or ability to generate political support.

Equity in school finance is a complex subject. No attempt is made here to examine the subject in depth. The State has approached this issue through minimum foundation funding and through equalization funding since there is agreement that interdistrict inequities do exist in the financing of community colleges: low-wealth districts tend to have low-revenues available per student. Finance legislation for 1983 (SB 851) included two factors related to equalization. The first, included in Education Code Section 84703, was intended to raise the average revenue level of low-revenue districts to 91 percent of the statewide average revenue level per ADA. Small districts were to be equalized on the basis of the small district/revenue size curve. The second equalization factor was included in Education Code Section 8470[illegible] and was to provide additional State funds equal to ten percent of inflation funding each year, raising the average revenue of districts with lower averages toward the State averages as high as possible with the funds. Again, equalization for small districts was based on the small district factor.

Since it was understood that the total amount of annual appropriations might not fund all elements of the finance plan, priorities were established among the various elements. The first priority in SB 851 is the Base Revenue. The second priority is Equalization #1. Third is Inflation and Equalization #2, proportionately, and the fourth is Growth ADA.

Significant enrollment decline, when the base revenues remain the same, will result in higher revenues per student. Equalization measures, therefore, will be hard-pressed even to maintain existing relationships when high-revenue districts experience significant enrollment decline. That, coupled with the uncertainty of full funding suggests that equalization may be difficult to achieve in the near term.

SB 851 directed that "...the Chancellor of the California Community Colleges shall develop, as an alternative to Section 84703 of the Education Code, a system of differential funding for the community college districts." (Emphasis added.) If support for activities is related to the cost of those activities and adjusted as necessary for recognized variables such as college size, support can be provided on the basis of need without regard to district wealth. Properly implemented, a system of differential funding can treat all colleges the same. Obviously, history cannot be ignored in the shift from one system to another. Choices made in earlier times under very different circumstances resulted in a great range of commitments to programs and personnel. Those choices contributed and still contribute to an extreme variation in costs (expenditures) among the districts. A system of differential funding could, over time, reduce inequities and imbalances.

To maximize this potential strength, the system of differential funding should be based on accurate unit cost analysis. It should recognize substantial differences in unit costs among districts and support levels should be adjusted over time to achieve greater equity without disruption of current operations.

8. Can Help to Focus State-Level Interest on Policy Issues. Since data and funding formulas have been agreed to, State policymakers are more apt to focus on policy issues.

Almost every year for the past decade, policymakers have been required to devote an inordinate amount of their time to consideration of new funding mechanisms for the community colleges. Declining fiscal support has affected all State services including the other two segments of postsecondary education. It appears, however, that policymakers have greater confidence in the data and the funding formulas of the other two segments. Continuing consideration of funding formulas for the other two segments is not necessary. In the community colleges, excessive energy and attention have been devoted to elements which should be relatively stable over a period of time. Properly implemented, a system of differential funding can provide data and funding formulas in which policymakers may have confidence. This would free them from the details of management to consider broader policy issues.

To maximize this potential strength, a comprehensive, integrated data base and workload measures and support formulas should be developed in which policymakers and college personnel may have confidence. Workload measures and support formulas should be simple enough to be readily understood and complex enough to recognize and include appropriate variables.

9. Can Contribute to Adequacy of Funding. If the supporting data are appropriate, accurate, and current and if the support levels are fully funded, adequate support can be provided.

Without appropriate and accurate data, it is difficult to determine whether or not funding is adequate. It is easier to be persuasive in seeking resources when the condition of the enterprise has been diagnosed accurately and the needs have been described accurately.

Differential funding is no different from any other system in its ability to generate funding from an inadequate revenue base. If resources are not available, no system can guarantee adequate funding. Since the community colleges must compete with other public services for revenues, they owe it to the students and the communities they serve to present their best possible case. When choices must be made among services, those requests backed by accurate information and analysis are most likely to be supported.

Properly implemented, differential funding can contribute to adequacy of funding by developing a persuasive case for support built upon an accurate description of its vital activities and an accurate description of resource needs for each activity.

To maximize this potential strength, basic data should be appropriate and accurate and as current as possible. The system should be designed so that it makes the best case possible for adequate funding.

10. Can Reduce the Number of Decisions Needed. With a predetermined set of rules, funding agents and recipients have many fewer decisions to make.

    Rules for finance have changed many times in recent years. Virtually every change has affected the whole of each college although year-to-year changes may have impacted different activities differently. This has required local decision-makers to review all activities of the college, as much as possible in response to each change. Although most college personnel deny that it has happened, it is possible that decisions have been made or at least considered on the basis of the relative cost of various services. That kind of decision-making would be reduced if support for various activities were provided on the basis of costs. As in the case of State-level policymakers, the availability of reliable data and established and accepted rules and procedures, would free local policymakers to consider broader issues or to concentrate on one element of the institutions at a time.

    To maximize this potential strength, a funding system should be adopted for a relatively long time. If phasing-in is required, as it would be in the California Community Colleges, phasing should be carefully planned and widely understood so that all concerned will know the rules for the foreseeable future.

Major Potential Weaknesses

1. May Reduce Flexibility of the Colleges and the System. A system of standard costs and average support rates may tend to force practices toward some hypothetical average. This could reduce flexibility of the colleges to respond to local needs and of the system to respond to unique postsecondary needs. There is concern, also, that appropriations based on differential cost analyses might lead to line item budget control or expenditure control as in categorical funding.

    Probably no concern of community college personnel is more pervasive than is the concern for local autonomy. As discussed earlier, page 3-3, Glenny and Pickens have recognized the tensions related to accountability/autonomy and have suggested principles to break down the dichotomy and to respond to both State and local interests.

    To minimize this potential weakness, a finance plan should continue financing for community colleges separate from other segments of education, continue local funding in conjunction with State funding, and provide for appropriations on the basis of differential or cost analyses but provide for local autonomy in the expenditure of funds at the district level.

2. *May Not Be Sensitive to Local Needs*. A system driven by statewide averages might not be sufficiently sensitive to local characteristics such as the costs of labor or the needs of special populations.

   The diversity among California Community Colleges is so great that anyone, not familiar with the colleges, has trouble comprehending it. It is difficult to devise any policy which accommodates all the diversity. The mix of credit and noncredit courses serves as an example. For 1982-83, the San Francisco Community College District reported 48.0 percent of its total ADA as noncredit. On the other hand, the Los Angeles Community College District reported .2 percent of its total ADA as noncredit. There are many other differences based upon choices made over the years by local boards of trustees in response to local situations. Most community college personnel see this diversity as a strength to be continued, not as a weakness to be curtailed. They believe that differential funding might reduce the ability of local districts to respond to local conditions.

   To minimize this potential weakness, any funding system should be flexible enough to allow for and encourage or enhance a wide variety in curriculum which includes the full range of educational services which are deemed to be an acceptable element of the mission of the community colleges.

3. *May Discourage Innovation*. If too restrictive, the procedures for providing support may reduce a campus's ability to try innovative or unproven ideas.

   Current funding procedures for the California Community Colleges restrict expenditures only in categorically funded programs. Examples are the EOPS and HSPS programs, deferred maintenance and construction. Revenues for those programs must be spent in the programs. To the extent that differential funding might increase the areas of categorical funding or revert to categorical funding, expenditures would be restricted to specified areas. That would, of course, restrict a district's options. As far as can be determined at this point, there is virtual unanimity among funders and recipients that further categorical funding is neither sought nor anticipated. There can be no guarantee, however, that positions will not change, particularly if there is further pressure exerted in the management of decline. It is doubtful if colleges have much in the way of discretionary resources currently. A special State "Fund for the Improvement of Instruction" has been helpful in supporting efforts for innovative and unproven ideas. Presumably, that program would be continued.

Improperly implemented, differential funding might become more restrictive than is the present system. That would tend to discourage innovation.

To minimize this potential weakness, any new funding system should generate revenues, not control expenditures. There should be no increase in categorically funded programs except for special purposes or to encourage start-up programs. Existing categorical programs such as EOPS and HSPS should be assimilated into a differential system without expenditure controls as soon as possible after it can be assured that workload measures and support levels accurately reflect the need for EOPS and HSPS services.

4. May Be Too Difficult to Understand. If workload measures and variables included in support formulas are too complex, they will not be adequately understood by policy makers or by college personnel.

Some early versions of differential cost funding systems attempted to identify and establish too many categories, particularly with instructional activities. Florida had 38 or more subject areas, each with a different support level. Texas still has 58 different support categories. Most experts agree that it is not necessary and may be counterproductive to design a system with so many categories. Five to ten categories, including support activities, appears to be more appropriate.

Some formula-based systems are complicated. The California State University System, for example, utilizes an extremely complex set of formulas for the distribution of funds. The basic system, that part visible to policy makers, is relatively simple but, beneath the surface and driving allocations, there is much detail. The system seems to work for the California State University System but such complexity is not desired for the community colleges.

At the same time, there is great diversity among the community colleges and much of the diversity needs to be accommodated through formulas. The objective must be to keep the system simple enough to be readily understood and complex enough to accommodate appropriate variables. Improperly implemented, differential cost funding could result in workload measures and formulas that were too complex to be understood readily.

To minimize this potential weakness, support categories should be kept to a minimum, certainly not more than ten, including both instructional and support categories. Workload measures and support formulas should recognize demonstrated differences in costs and include appropriate variables but be simple enough to be readily understood by both funders and recipients.

5. May Add Unduly to the Burden of Collecting, Verifying and Reporting of Data. Data on which apportionment might be based will be significant and will add to the burden of recordkeepers at the colleges.

Current data requests are not much appreciated by college personnel. Difficulties with the data are described in considerable detail in Chapter 4. It is apparent that there is a need, apart from requirements of a funding system, for changes in the data and information system of the California Community Colleges. Currently, the Chancellor's Office is preparing a plan and a request for funding for the next phase in development of an information system. As that is developed, data needs for funding should be incorporated. That will help to minimize the burden on the local colleges. If not coordinated with other data needs of the colleges, the added burden of collecting, verifying, and reporting data for a differential funding system could be excessive.

To minimize this potential weakness, all data needs of the colleges and the system should be considered as one set of needs. Current data procedures should be reviewed. A comprehensive, integrated information system should be developed. A detailed plan should be prepared for phasing in a new information system with adequate lead time provided for the transition.

6. May Not Be Adequately Funded. Nothing in a differential funding system or any other can guarantee that the formulas will be fully funded.

   This issue is discussed under item 9 above in potential strengths.

7. May Not Be Supported By Current Data. Given the time necessary to collect, clean, and analyze data and the nature of the budget process, there will be a lag of several years between the availability of actual cost data and the budget year being planned.

   This is a common problem in formula based funding. For example, in the plan for funding the public community colleges of Illinois, resource requirements are estimated by adjusting actual unit cost expenditures from two years previous for inflation. This is about as current as data can be in such a system.

   In recent years, economic conditions have changed frequently enough that a two-year lag in information for funding formulas may be significant. Unusual conditions in a given year could have an undue impact on formulas, also, unless some averaging mechanism is used.

   To minimize this potential weakness, averaging over two or three years might be useful. Inflationary or cost of living adjustments can be considered on an annual basis. Incremental adjustments can be different for different support categories to help keep funding levels closer to actual costs.

8. May Lead to Tensions Among College Personnel. A funding system in which different programs generate different levels of funding may result in pressures to limit expenditures to the programs generating the support (categorical funding). Short of that, resentment and tensions may develop among personnel in various programs.

This is reported as a possible weakness of differential funding by some college personnel. Others report considerable existing tension. There are tensions now in districts where unit cost data are accurate enough to permit valid cost comparison. Tensions exist now in many districts since there is only one workload measure (ADA) and no activity, except for instruction, appears to be generating support.

There is no way to resolve this issue to the satisfaction of everyone. Possibly differential funding would exchange one set of tensions for another. Recognition of essential support services and the generation of funding through support services might reduce tensions between insructional and support personnel. Funding different instructional programs at different rates might increase tensions between instructional disciplines.

To minimize this potential weakness, an orderly transition to a new system should be planned with all participants adequately informed.

9. May Result in Uncertainty and Frustration During the First Years of Operation. Any major change in finance will result in uncertainty until the system is in place and results are known. Uncertainty is likely to increase the tensions described in item 8 above.

Personnel in the California Community Colleges know what it is to function in uncertainty. Since 1973 there has been very little they could count on from year-to-year in their funding. They want, and need, some certainty.

There is the possibility that a carefully planned and executed transition to differential funding could provide greater stability over time. That should be a major objective. It is likely, however, that any transition will be a difficult period because of the uncertainty it will generate.

To minimize this potential weakness, transition to a new funding system should be planned thoughtfully, understood fully, and implemented carefully over a prescribed period of time.

10. May Encourage Intervention by Policymakers. When the parameters of the system are in the open, they can be changed easily, which may affect stability and predictability.

This is a risk in a system as close to the political process as is the community college system. There are one or more colleges in virtually all of the state legislative districts. There are other State agencies with a major interest in the community colleges. There are seventy local district boards of trustees. Fortunately, legislators, related State agencies, and local trustees take considerable interest in the welfare of the colleges statewide or at the local district level. That is as it should be. Unfortunately, when there is some dissatisfaction with management decisions or when local college interests do not coincide with statewide interests, constituencies and local colleges often seek a solution through the legislative process. That occurs now. It might or might not occur more frequently with the parameters of the funding system more in the open. It might be argued that one reason for intervention is that too little information about the colleges is in the open, that information often is not available or that policymakers do not have enough confidence in the parameters of the system.

It may be hoped that the comprehensive review of the mission of the California Community Colleges and of the Master Plan for Higher Education will resolve uncertainties in the minds of policymakers and provide a basis for greater stability and predictability.

It may be hoped that differential cost funding can provide a mechanism for funding in which policymakers will have greater confidence so that they will consider it possible to ignore the details and to concentrate on broader policy issues.

To minimize this possible weakness, a new funding mechanism should provide a basis for confidence. It should delegate the details of the system to the Board of Governors and to the Chancellor in order that the legislative arena may be reserved for consideration of policy rather than management issues.

FOOTNOTES, CHAPTER THREE

1. Wattenbarger, James L. and James Heck, *Financing Community Colleges*, University of Florida, 1983. (p. 2)

2. Breneman, David W. and Susan C. Nelson, *Financing Community Colleges: An Economic Perspective,* Washington, D.C., The Brookings Institution, 1981. (p. 37)

3. __________, op. cit. (p. 177)

4. __________, op. cit. (pp. 180-181)

5. __________, op. cit. (p. 161)

6. __________, op. cit. (p. 166)

7. Glenny, Lyman A. and William H. Pickens, *Funding Higher Education in the State of Washington: A Consultant Report to the Temporary Committee on Educational Policies, Structure and Management,* December 7, 1983. (p. 1)

8. Holsinger, Norman K., *Between The Dream and The Reality,* Draft Manuscript, June 1, 1984. (pp. 20-21)

CHAPTER 4.

THE INFORMATION BASE

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A. Available Data

It was determined that reports to the Chancellor's Office for 1982-83 would be used for analysis and comparison of expenditures by activity. There were unusual circumstances in 1982-83. Funding of $30 million was removed from recreational/avocational classes and courses and there were no growth funds or cost-of-living increase. On the other hand, in 1980-81, a large amount of unfunded ADA was folded into the funding base without additional apportionment. In 1981-82, support for noncredit courses was changed by limiting support to nine areas. There had been unusual circumstances each year. No recent year could be considered "normal" and data from earlier years were not as complete as were data for 1982-83.

Compilation of reports for 1982-83 was completed in February of 1984. Information on expenditures by activity/per ADA, which formerly was compiled only on a statewide bases was made available district-by-district. Data submitted by all seventy districts were used in the analysis. Data from five reports were used:

(1) The 311 Financial Report (General Fund Expenditures by Activities);

(2) The Course Classification Report;

(3) The Course Activity Measures Report;

(4) The Staff Data Report; and

(5) The 320 Attendance Report.

It should be noted that these reports were designed by the Chancellor's Office to provide information for current funding procedures or for various State and federal reporting purposes and were not designed to provide cost analysis data for differential funding. However, since these data were the best source of information available regarding instructional and support activities and associated costs (expenditures), efforts were made to combine and integrate data from the various reports to identify cost differences and reasons for cost differences among activities.

Integrating the data proved to be a difficult task. As the preliminary analysis was being completed, the project staff found a number of inconsistencies within the different reports which were difficult to reconcile. Examples of these inconsistencies were:

(1) The ADA totals as reported on the 320 Attendance Report were not consistent with the computed ADA from the Course Activity Measures Report.

(2) When the data from the financial report were combined with the credit data from the Course Activity Measures Report, some districts showed costs in discipline areas but no credits, and other districts showed credits with no associated costs.

(3) It appeared that in certain discipline areas, the districts were not consistently assigning courses to the same TOP code. (An explanation of TOP codes appears in Taxonomy of Programs, July, 1983, California Community Colleges.) For example, Remedial English appeared to be reported by some districts under the 1501 (General English) Code whereas other districts reported these same courses under the 4930 (Developmental) Code.

Since it was important to have comparable information in order to analyze differences in activity costs, the project staff conducted field visits to twenty-nine of the seventy districts to learn more about why differences existed among the different reports. Results of the field visits are reported in Appendix D.

Several factors were identified which appear to contribute to inconsistencies among the reports.

(1) Multiple Reporting Channels. Data are currently collected through five major reports. The reports are required by different offices within the Chancellor's Office and filled out by different offices within the districts. The result is that similar data elements are not reported consistently.

(2) Multiple Reporting Times. Reports are required at different times during the year resulting in different "snapshots" of the districts. Partially because of this, integrating the current files does not produce reliable data.

(3) Uneven Reporting. Examination of institutional reports revealed that similar data elements were reported differently for the same report. Discipline areas, for example were not consistently aggregated into the same TOP code category by the institutions.

(4) Varying Levels of Disaggregation. Information is not always reported at the requested level of detail. For example, some colleges assign instructional support costs to discipline areas but others, primarily small districts, aggregate these costs into a single "instructional cost" category.

(5) Definitiional Precision. There appears to be a significant amount of local interpretation of definitions used in the reports. Local staff responsible for reporting data found that they had to make numerous interpretations in order to assign information to categories. This variation reduces the confidence an analyst has in the uniformity of data at the State level.

(6) Multiple Data Systems. Many districts have more than one data system serving their administrative needs. Technical differences among the various types of hardware and software make it difficult to combine files for analysis.

(7) Special Reporting Problems. There is a general lack of consistency in reporting data about summer sessions, contact courses, noninstructional salaries, noncredit instruction, costs associated with departmental chairpersons, and capital outlay. For example, some institutions split summer session costs between two fiscal years and some do not. Some districts report contract classes on the Course Activity Measures Report and some do not.

The following conclusions were reached as a result of the field visits:

1. Current data, obtained regularly from the community college districts, are adequate for current funding procedures. Data driving current appropriation formulas are subject to audit and are valid. That is true, also, for categorically funded programs such as EOPS and HSPS.

2. In the composite, attendance and budget and expenditure data are accurate. At a lower level of detail (sub-disciplines within instructional program areas) inconsistencies occur. Because of these inconsistencies, as identified in the 1982-83 data, it is not possible to identify expenditures at the four-digit (sub-discipline) level. It is not possible, therefore, to differentiate among instructional disciplines with existing data. Data are adequate to provide a basic framework for differential funding but not for a fully developed and implemented system.

3. Full implementation of differential funding will require significant changes and improvements in the data and information system. Among changes or improvements required are the following:

    a. A policy commitment to an integrated, updated and upgraded data system.

    b. A common Taxonomy with consistent definitions and categories.

    c. An integrated information system with linkages among data sets.

    d. Coordination and consistency among data requests at the State level.

    e. Coordination and consistency among data reports at the college or district level.

    f. Identification of required basic data elements.

    g. Consistent and timely reporting of both direct and indirect unit costs.

    h. Enforcement of reporting requirements.

i. Upgraded computer capability at the State and local levels.

j. Adequate resources, at all levels, to support the system.

B. Plan for Development of Needed Data

The development of a useful information system for the purposes of differential funding can not be easily separated from the overall information system reporting by the college districts to the Chancellor's Office and to other local, state, and federal agencies. As such, this section of the report examines the development of an overall information systems within the Chancellor's Office and highlights those changes that would be required due to the plan for differential funding identified earlier in this report. This section discusses four objectives for the development of an adequate information system to meet the objectives identified.

The differential funding study is only one aspect of increasing demands being placed on the data reporting systems of the Chancellor's Office. Changes in state and local funding responsibilities since the passage of Proposition 13 have increased the legislative and executive examination of community college operations in such areas as: fees and financial aid; student services and matriculation; comprehensive planning; instructional programs; and overall mission. None of these activities, in and of itself, justifies the need for a comprehensive, integrated information system at the state level. Yet, the inability of the Chancellor's Office and the Board of Governors to respond quickly and accurately to such initiatives serves to undermine the credibility of the entire system. The original design, funding, and implementation of Phase I of the Chancellor's Office information system simply does not provide for the increasing demands and responsibilities being placed on state-level community college data reporting. The implementation of Phase II of the Information systems Project will go a long way in meeting these increasing demands for information. The recommended changes in data elements, reporting procedures, and needed resources which are part of this report are consistant with the plans for implementation of Phase II currently being undertaken by the Analytical Studies Unit of the Chancellor's Office.

Objectives

The previous section of this chapter described many of the existing difficulties of using the current information system for the purposes of examining differences in costs among districts by activity category. The development of an information system for this purpose and for other planning and policy purposes within the Chancellor's Office should be guided by four basic objectives:

1. To ensure data integrity.
2. To integrate different reporting systems.
3. To provide accessibility to information.
4. To ensure accountability for information.

Each of these objectives will be described briefly both in terms of general information systems development and of differential funding implementation.

1. To Ensure Data Integrity

   The development of an adequate information system will require that increasing emphasis be placed on developing procedures to ensure that the data reported by districts and used by the Chancellor's Office are accurate, complete, and uniform. As noted in the previous section of this chapter, existing mechanisms at the state and local levels for the validation of reported data and for the resolution of known discrepancies are not sufficiently uniform or complete to ensure the validity of the data reported. For the data to be useful for analysis, it must be accurate. Several districts, for example, reported all of their course offerings as lecture courses in the Course Activity Measures Report. Other districts reported student contact hours in this report that were two or three times above or below the level of student contact hours reported in the apportionment process. Such variations in reporting render the overall data of little use in a differential funding system that uses such measures for allocating apportionment funding to individual districts.

   Likewise, the data reported must be complete if it is to be useful in an integrated system for planning, policy, and revenue purposes. The plan for differential funding described in this report requires basic data from the student, course, staff, and facilities systems to distribute apportionments. This makes nonsubmittal or incomplete submittal of data in these areas as a block to the apportionment process. Reporting in the area of noncredit programs, for example, will need to be complete if the overall workload measures for individual districts are to reflect accurately the need for resources.

   Finally, the reporting procedures and definitions used by districts must be uniform to ensure the basic integrity of the data. If dollars are tied to specific workload measures and need factors, the system needs to be certain that dollars are not flowing to districts simply due to the variations in the reporting practices among the districts. This factor is very important if the cost studies used to determine adequate levels of support in particular program areas are to be realistic.

2. To Integrate Different Reporting Systems

   Examination of the changes in factors that influence differences in costs among programs and among districts requires that data from multiple reporting systems be brought together as a complete unit for purposes of analysis. There is a need, for example, to bring together the faculty and staff characteristics (i.e., salary, load, contract status) with course activity data such as student contact hours, average section size, and method of instruction in costs among instructional programs. To a limited extent, such integration of staff and course data is theoretically possible using existing reporting mechanisms. The results of the data analysis and field visits indicate, however, that the existing match between these reporting systems is tenuous at best. As indicated earlier in this chapter, there are several reasons for this situation: differences in reporting responsibilities; differences in assignment of instructional activity codes; and differences in reporting periods are a few of the existing problems.

True integration of data from multiple systems requires that a common link, or identifier, be provided within the systems. In the example used above, data from the staff and course files may currently be merged by district and instructional activity code. This merger will allow summary characteristics of faculty and staff in a particular instructional activity area to be matched with summary levels of course activity within the same instructional area. In an integrated system, the staff and course file would have a common element that would tie individual faculty to individual course data. Such integration is possible either by including course identification in the staff data file or by including staff identification within the course file. This mechanism would allow for a more complete examination of differences in costs, delivery sytems, and staff characteristics and would assure uniformity of assignment to a particular instructional activity area between the two systems. Such links between student, course, staff, facility, and fiscal data would greatly improve the flexibility of the reporting systems to meet changing information requests and the ability to validate the completeness, accuracy, and uniformity of the data reporting.

3. To Provide Accessibility to Information

The collection of data by the Chancellor's Office should serve to provide a better understanding of the scope, clientele, and resources of the community colleges. The process of data acquisition does not ensure the development of an information system. While the data collection process is a necessary step in the development of information, the data are of little use unless they are organized in a fashion to make them accurate, understandable, and accessible. Data collection is having 18 million student data records stored in a central computer facility. The transformation of those data to information requires that the data be summarized into manageable form, analyzed as to their importance, and used to inform policy decisions at the state and local level. This transformation requires the careful design and development of personnel, hardware, and software support systems at both the state and local levels.

Access to the information is required by analysts within the Chancellor's Office, in local districts, and in other State and federal agencies. There are a multitude of possible uses for the information, and each user of the information system will have unique needs for information retrieval. The development of summary (or abstract) files from the base data should provide easier and less costly access to the information through the use of data base and report writing packages. Standardized ongoing reports need to be developed to provide local districts with comparative information for planning purposes. Likewise, reports to other State and federal agencies need to be coordinated through the regular data reporting process. In addition, ad hoc inquiry and reporting procedures need to be developed to facilitate the retrieval of information.

For a number of reasons, Phase I of the Information Systems Project has dealt primarily with the development and subsequent standardization of data element reporting along with State and federal reporting requirements. Staff and resource limitations have precluded developmental work on system integration and retrieval systems. Phase II of the Information Systems Project is designed to provide the structure and resources for such developmental efforts. Adequate support for personnel, equipment, and program development is essential at both the State and local level if Phase II is to have a realistic chance for success.

4. To Ensure Accountability for Information

The Chancellor's Office should be the central clearinghouse for information related to the community colleges. As such, the office assumes primary responsibility for the data it collects and the information distributes. The Chancellor's Office must be accountable to local districts to assure that the set of data elements required are needed, that the data are available. The Chancellor's Office must be accountable to the Board of Governors and to other State and federal agencies that the information provided by the districts is accurate, complete, comparable, and timely. Additional efforts of data validation and reconciliation will be required by the Chancellor's Office. Increased enforcement of district reporting requirements through minimum standards, local district audits, or use of the data in the apportionment process is an essential component of the planned implementation of Phase II. The State must provide districts with a stable reporting environment, with clear and uniform definitions of data elements and reporting procedures, and with adequate resources for data reporting if districts are to be accountable for the timely and accurate submission of data.

Suggestions for Acquiring Needed Data

This section of the chapter presents in summary form proposed changes to data elements, reporting procedures, and resources necessary to implement an integrated information system as described in this report. As discussed previously, many of the suggested changes are incorporated in the proposal for the implementation of Phase II of the Chancellor's Office Information Systems Project and are described in greater detail in documentation of the proposed Phase II effort.

Data Elements

Of primary importance is the need to provide for common identifiers linking the several existing systems into an integrated information system. Figure _ illustrates possible identifiers which could be used to integrate the separate reporting systems currently in place. The figure also points out several other changes in the data collection process that would be required to implement a fully differentiated funding system. The addition of a student financial aid component to the student data reporting system is essential if the element of student financial aid recipients is to be used as a measurement of resource needs within the student services component of a differential funding system. Currently, there is no ongoing mechanism for the reporting of such data within the Chancellor's Office information system. The automation of annual fiscal data reporting is a second new system that would need to be designed for integration into the information system. Currently, districts report the annual fiscal data through hardcopy reports to the Chancellor's Office. The development of expenditure data at the subdiscipline level (4-digit TOP Code) would require a substantial expansion of the fiscal data reporting process, and could only be accomplished efficiently through the automation of the fiscal data reporting. Program and course approval data and the facilities inventory would be incorporated into the overall information system. While these systems are presently automated within the Chancellor's Office, the necessary support systems have not been developed to integrate these systems to other components of the information system such as course activity measures. Finally, the modification of the apportionment system would be required to support a differential funding system approach. This would involve accessing data from several files within the information base to provide the basic workload measures and need factors to be used in the apportionment process.

Reporting Procedures

Additional procedures need to be developed to assure complete reporting of needed data within the information system. All existing data items need to be examined with respect to the continued usefulness with the system, and a stable set of required data elements be instituted for mandatory reporting purposes. Elements of the college operation which are outside of state wupport (such as community services and contract education) need to be identified in order to isolate costs for such activities from the development of support rates for the general apportionment mechanism.

Increased validation and resolution of data discrepancies need to be designed into the normal data processing activities within the Chancellor's Office. These procedures would include greater use of range parameters within individual data elements, greater use of historical data to check data uniformity, and the integration of multiple files to cross-check reported data.

Development of more uniform definitions and procedures for the reporting of data will require Chancellor's Office staff to provide a closer working relationship with district personnel through regional workshops, written communications, and campus visits. Review of existing documentation such as data element dictionaries, users manuals, or general instructions need to be reviewed to define standard reporting practices in such areas as multiple-record course sections, definition of full-time and part-time staff, format of individual record identifiers, and the allocation of indirect costs to instructional activity areas.

Resources

The costs for these proposed changes to the information system will require the substantial investment of additional resources at the state and local levels. Within the Chancellor's Office, the existing levels of staffing for the information systems project are sufficient only to support the ongoing system maintenance and operation of the existing system. There is a need for additional personnel to complete the critical systems design work for Phase II. Reallocation of existing resources within the information system to this developmental effort would require the termination of the ongoing efforts in data base maintenance. Consideration should be given to the use of contract for the design stages of Phase II. This would allow the State to undertake new initiatives in the development of an integrated system without adding additional personnel years to the ongoing state operations. Implementation of the Phase II components would require additional support staff for the Chancellor's Office both for data base maintenance and for the development and implementation of decision support systems within the Chancellor's Office. In addition, increased operational costs would be expected due to the addition of new data systems and the increased costs of data validation and use. Current estimates for the design and implementation of Phase II indicate the need for an additional appropriation over three years of $815,000 to cover the costs for project development.

Needed resources at the local district level are more difficult to estimate from a state level. The results of the study's field visit reports and subsequent follow-ups with individual districts have identified a potential cost of implementing fiscal data reporting at the 4-digit TOP Code level of as much as $1.9 million statewide for start-up and $2.4 million annually for operation. More complete estimates of local district costs need to be developed if Phase II is to be implemented. The continued assertion that changes in State reporting requirements are not State-mandated local costs is to ignore the reality of data reporting procedures. While Phase II would hopefully provide some stability in the data reporting requirements for local districts, the developmental costs for the new components of the system will be substantial and need to be recognized if the proposed changes in data reporting are to be implemented.

CHAPTER 5.

A DIFFERENTIAL COST FUNDING APPROACH FOR THE CALIFORNIA COMMUNITY COLLEGES

CHAPTER 5. A DIFFERENTIAL COST FUNDING APPROACH FOR THE CALIFORNIA COMMUNITY COLLEGES

Chapter 2 of this report describes the study design and methodology for the analysis of differential cost funding in the California Community Colleges. Chapter 4 describes the data base currently available for use in this research and indicates changes in the reporting of information that may be necessary to support a fully implemented differential funding system. This section of the report describes the results of the data analysis for each of four major areas of support: 1) Instruction; 2) Student Services; 3) Maintenance and Operation; and 4) General Services. The basic purpose of the data analysis is to examine historical cost data to determine what factors influence differences in district expenditures per unit of workload in each of these four support categories. A second step in the analysis is to discuss the implications of using such cost related factors as workload measures for a differential funding system. It is important to note that the selection of workload measures for a differential funding system should be informed both by historical cost analysis and by policy considerations. Factors that may explain historical cost differences among districts may or may not be appropriate as a mechanism to distribute revenues through a state-level funding mechanism.

The analysis uses fiscal year 1982-83 data as the basis for the examination of historical cost factors. This is the most recent year for which the necessary expenditure and workload data are available. Any of the most recent years of community college funding prove to be problematic for cost analysis purposes. The recent limitations on community college funding have, as noticed earlier, led to a substantial decline in purchasing power for the colleges in the years since 1977-78. For 1982-83, the colleges' general revenues were reduced by $30 million from the previous year due to budget act language. The point is that no recent year of community college funding has been "normal," and care must be taken to adjust support levels from the historical basis to an adequate level of support before proposed implementation.

A. Support Categories

The determination of the support categories to be used in the analysis are derived from an examination of categories used in other states, nationally accepted accounting classifications for higher education institutions, and the California Community Colleges Budget and Accounting Manual. Discussions with the project Advisory Committee concerning support categories included several points. First, the national trend for states using a differential funding system for allocating resources has been to simplify, rather than to expand, the number of support categories and workload measures in use. In recent years Florida has abandoned the highly detailed cost-based approach of over 50 support categories for a negotiated budget approach. Likewise, several states have narrowed the range of support categories utilized in recent years. The California Postsecondary Education Commission recently endorsed the development of a funding mechanism for the California Community Colleges that would better relate to the costs of providing the services and would provide for a limited number of support categories. (Principles for Community College Finance, California Postsecondary Education Commission, 1984).

A second consideration in the Advisory Committee's deliberations deals with the uniformity in the reporting of fiscal data among districts. Recent changes in the Budget and Accounting Manual should provide for more uniform reporting of fiscal data in future years. Over the years, community college districts in California have each developed their own budgeting systems for local budget planning and development purposes. While the Budget and Accounting Manual provides a common structure for the reporting of fiscal information to the Chancellor's Office on the CCFS-311 financial report, the ability of districts to cross-over local budget systems to this statewide structure varies among the districts. For example, the extent to which districts charge back general institutional support services such as reproduction services and computer operations to individual instructional disciplines varies widely. The Advisory Committee endorsed a set of support categories which were limited in number, which reflected essentially different services or activities, and which were comparable among districts. The support categories used in this analysis are: 1) Instruction; 2) Student Services; 3) Maintenance and Operations; and 4) Institutional Services.

Instruction and Instructional Services

Instructional Activities (controlling activity codes 0100-5300)

Instructional Support (controlling activity code 6000)
  Academic Administration, Course and Curriculum Development

Instructional Services (controlling activity code 6100)
  Learning Center, Library, Media, Museums, and Galleries

Student Services

Admissions and Records (controlling activity code 6200)

Counseling and Guidance (controlling activity code 6300)

Other Student Services (controlling activity code 6400)
  Student Personnel Administration, Financial Aid Administration, Health Services, Housing Services, Student Transportation, Handicapped Services, Job Placement Services, and Other Services

Maintenance and Operations

Operations and Maintenance of Plant (controlling activity code 6500)

General Services

Planning and Policymaking (controlling activity code 6600)

General Institutional Support Services (controlling activity code 6700)
  Fiscal Operations, General Administrative Services, Logistical Services, Staff Services, Community Relations, and Retired Noninstructional Staff Benefits.

B. Workload Measures

This section of the report provides analysis of a variety of variables (or factors) which may influence differences in district expenditures per unit of workload measure. Each of the four major support categories are examined independently. In general, these factors may be described in four broad categories that describe differences in district history, size, clientele, and resources. Historical differences among districts relate to such factors as relative wealth in terms of the modified assessed valuation per ADA of the district before Proposition 13, tax rates which were then in place in individual districts, responsibilities for the adult education function within the district, and the relative growth or decline in district population and enrollment over the last several years. Size related factors which may influence cost differences relate both to the total size of the district operation and to the average size of the colleges within the district in multi-campus districts. Differences in clientele deal with the characteristics of the students served within the district. Differences in the mix of resources that the district uses in meeting the needs of its students are also important in explaining variations in cost among districts.

The detailed information used in the analysis of workload measures is found in Appendix E of this report. In general, the analysis demonstrated that two important factors influenced differences in district expenditures in all four support categories. First, historical differences in district wealth from pre-Proposition 13 continue to contribute substantially to differences in district expenditures per unit of workload. Equalization mechanisms in recent community college finance statutes simply have not been effective in reducing historical wealth differences. If SB 851 provisions are fully funded, however, the current financing mechanism's equalization components should provide substantial resources toward equalizing district credit revenues per ADA. Second, college and district size have clear implications for differences in expenditures among districts. The economies of scale that are currently recognized in the small district factor in terms of general support per ADA are also evident in each of the four major support categories. Factors describing resources and clientele tend to be more varied among the four support categories. In the four sections that follow, these factors are reviewed for each support category.

Instruction

Within instruction, a number of variables were examined in relation to district expenditures per ADA for instruction. Six factors accounted for about 85 percent of the variation in expenditures per ADA among the districts. As noted previously, district wealth plays a large role in the explanation of expenditure differences among districts -- about sixty percent of the variation within instruction is explained by this factor alone. A second important factor is the student/faculty ratio within the district. This variable is negatively correlated with instructional expenditures per ADA (-.664) and as Table 10 indicates is closely related to the average college size within a district. For the instructional area, the student/faculty ratio explains more of the variation in district expenditures per ADA than either district or college size. When combined with district wealth, the student/faculty ratio accounts for over 70 percent in the variation in expenditures among districts.

A second historical factor influencing instructional costs is the percentage change in the level of district ADA during the five-year period from 1977-78 to 1982-83. During this period some districts have grown more than 30 percent in ADA and other districts have lost more than 30 percent of their ADA. Such differences in student workload levels have had clear implications for district instructional costs. With the advent of the marginal rate funding concept for the California Community Colleges in AB 8 (1979), district budgets have been adjusted by two-thirds of the average costs for ADA growth or decline. This means that districts with high growth rates over this period tend to have lower instructional expenditures per ADA than comparable districts with stable or declining ADA levels. With this third variable added to the analysis, more than 75 percent of the variation in instructional costs among the districts is explained.

Three factors which reflect differences in the mix of instructional resources among districts account for the remainder of the explained variation among districts in instructional expenditures per ADA. These factors include the average load in weekly faculty contact hours (WFCH) for full-time instructors, average full-time faculty salaries, and the percent of instruction (WFCH) taught by full-time instructors.

OPTION 1

Within the instructional area, a major effort was made to analyze differences in instructional program costs to identify high, medium, and low cost program areas to be included in a differential funding system. As noted previously, current expenditure information within the instructional support category currently is reported to the Chancellor's Office at the 2-digit TOP Code level -- that is by major discipline areas such as Architecture, Agriculture, Humanities, Physical Sciences, Engineering, etc. On a statewide average expenditure per ADA basis it is possible to identify several major disciplines that are typically high cost. Over the past several years, Agriculture, Biological Sciences, Communications, Health Occupations, Humanities, and Physical Sciences have, on a statewide basis, required higher expenditure levels per ADA than other major discipline areas. There are a variety of reasons for higher expenditures levels in these areas, including average class size, full-time/part-time faculty ratios, and equipment replacement and capital costs.

When variations in expenditures per ADA among districts were analyzed within each major discipline area, however, the variations among districts in expenditures per ADA were far greater than the differences in average expenditures per ADA for all of instruction. The programmatic differences among districts within these major discipline areas were thought to account for much of this expenditure variation. Within agriculture, for example, farm production training may have a far different cost than ornamental horticulture. Even within ornamental horticulture, costs per ADA may vary widely among districts due to the characteristics of the delivery system, the faculty involved in the program, and program content. In an attempt to better understand the differences in instructional program costs, data from the Course Activity Measures report and the Staff Data System were merged and analyzed by 4-digit TOP Code (sub-discipline level). This analysis reviewed such factors as average class size, student/faculty ratios, full-time/part-time faculty ratios, and average instructional salaries for each district in each of the sub-discipline areas. As described in Chapter 4, the analysis of these data showed clearly that the existing data reporting mechanisms within the Chancellor's Office will not allow for the uniform examination of these factors at the program level.

Within the instructional area, Option 1 would aggregate instructional workload into 3 broad cost categories, representing major discipline areas on a statewide average cost basis. Table 25 indicates the major disciplines in each of these 3 cost categories, along with average expenditures per ADA, percent of total ADA, full-time/part-time faculty distributions, average class size, and student/faculty ratios for each major discipline.

OPTION 2

While the existing data system may not support an accurate identification of instructional program costs, there are three existing differential rates of support for instructional activities within the California Community Colleges: credit programs, noncredit programs, and apprenticeship instruction. Option 2 would continue these existing instructional support rates until such time that adequate data become available to equitably determine instruction program cost differences.

Both of these options have advantages and disadvantages. Option 1 clearly addresses a major goal of a differential funding system -- to provide support for instructional programs in relation to the costs of providing them. There is not a substantial variation among districts in the relative amounts of instructional activity within these three cost categories. This fact means that such a cost differentiation could be made without substantial revenue shift among districts. As noted earlier, however, such aggregate differentiation does not recognize the wide variations in costs within such broad categories. A full spectrum of program costs are likely to be included within each of these three broad categories. Thus, some unwanted incentives for changes in program offerings may be instituted due to the implementation of such broad cost categories.

Option 2 has the advantage of conforming to existing law and could be instituted easily in the transition phase of a differential funding approach until such time as better program cost data become available. Clearly this option is only temporary in nature. It would provide for greater budget stability in the instructional area and would recognize that the existing data does not support the differentiation of costs in the program area. This option would, however, continue to fund some noncredit programs at a level of support that may not be appropriate. The noncredit nursing program in San Francisco, for example, has costs more similar to credit nursing programs in other districts than to the $1,100 support rate for noncredit instruction. Option 1 would place the noncredit program in its particular discipline area and fund it on the basis of its cost category.

BASIC WORKLOAD MEASURES

It is recommended that the student contact hour, rather than units of credit, be retained as the basic measure of instructional activity within the differential funding system. Given the unique nature of the colleges responsibilities for a wide variety of instructional programs (including transfer, vocational, remedial, and adult education) the contact hour continues to be the most appropriate measure of instructional workload. The possible implementation of a differential funding mechanism, however, should be accompanied by a change from the K-12 measurement of average daily attendance (ADA) to a measure that better relates to the costs of instructional offerings. Such a measure should reflect the level of enrollment of full-time student equivalents (FTSE), based on student contact hours. The measure should continue to use positive attendance for open entry/open exit and noncredit courses. The measure for census classes should be based on the determination of active enrollment for a single census rather than the existing two census procedures and should eliminate the existing attendance factor that theoretically converts census enrollments into attendance.

OTHER POSSIBLE FACTORS

Of the factors noted above as influencing historical costs, the student/faculty ratio is a good measure of differences in instructional costs due to differences in college and district size and should serve as the basis for the instructional component of adjustments for small districts. Likewise, the percentage change in district full-time student equivalent enrollment levels should be recognized through the marginal adjustment for instruction. As noted previously, it is recommended that the differential funding plan contain a single equalization mechanism rather than include a component within each major support category. The use of full-time faculty workload or salaries within a state-level differential funding system would represent a major departure in State policy in that such provisions are currently within the scope of local collective bargaining agreements. Either to implement statewide standard policies in these areas or to allow local district determinations in these areas to influence the levels of revenues in other districts would have dramatic consequences for the future of the collective bargaining process, for state/local relationships, and for the equity of the funding system. The issue of full-time/part-time faculty ratios has a substantial history of state-level interest and policy legislation. The differences in instructional costs based on the use of regular contract or hourly rate employees is evident. Past legislative efforts to address the part-time issue through the funding mechanism (such as the "instructional equity factor" proposed in AB 1369) have been rejected in favor of a general State mandate concerning the proportion of instruction taught by part-time faculty. If the differential funding system includes an instructional factor to provide some recognition of cost differences between regular contract and hourly rate faculty, then the restrictive legislation concerning the proportion of instruction taught by part-time faculty should be repealed.

Student Services

As noted in Chapter 2, a student services sub-committee has been working with the general Advisory Committee in the area of student services. The recommendation of the sub-committee is that the basic workload measure for the student services component of a differential funding system should be headcount enrollment. In order to equitably fund cost differences among districts due to differences in student clientele, the sub-committee has recommended that the basic headcount measure be weighted to reflect known differences in student characteristics among districts that can be related to differences in student services costs. The analysis of 1982-83 expenditure data in the student services area supports the sub-committee's recommendations.

There was little difference in the analysis of student expenditures on a per ADA or per headcount basis. A headcount enrollment measure, however, explained a slightly higher percentage of the variation in student service expenditures among districts than did the per ADA measure. Once again, historical wealth explained the greatest proportion of expenditure differences (40 percent). In the original student services analysis, the percentage of EOPS students within a district to total enrollment was the second most important variable in explaining differences in district student services expenditures per ADA. The advisory committee's policy recommendation to maintain initially the EOPS and HSPS program as categoricals led to subsequent analysis removing these programs from the general student services component. In this later analysis the percentage of student financial aid recipients within the district turned out to be, apart from historical wealth differences, most highly correlated with differences in district student service expenditures per headcount enrollment (.63). Average college size within the district also contributes to the explanation of differences in expenditures, bringing the amount of variation accounted for to 50 percent.

Other student characteristics, such as the percentage of student enrollment attending on a full-time basis and the percentage of students attending in noncredit programs also account for some portion of historical cost differences, bringing the amount of variation explained to above 60 percent.

BASIC WORKLOAD MEASURE

Discussions with the Advisory Committee and the student services sub-committee led to the recommendation that headcount enrollment be used as the basic workload measure for the student services component, that college size adjustments be included to recognize a need for a basic core of services in smaller institutions, and the use of the percentage of students who are financial aid recipients as the best indicator currently available to recognize differences in student services needs due to district clientele.

OTHER POSSIBLE FACTORS

Other student characteristics, such as the percentage of noncredit or fulltime students, clearly have affected differences in historical expenditure patterns yet may not be appropriate for differential support rates within a new funding mechanism. Districts with a large proportion of noncredit students, for example, historically have spent a lower amount per ADA in student services when compared to districts with no noncredit program. Yet it is likely that noncredit students in handicapped, remedial, and vocational programs require a level of student services equal to their credit counterparts. Additional analysis in the student services area was called for by recently vetoed legislation providing for the implementation of matriculation systemwide over the next several years. Any future funding for the matriculation pilot project should, at the close of the pilot project, be folded into the ongoing college support within the general apportionment mechanism. At that time, more refined measures of student services needs should be included as workload measures within the differential funding system and appropriate funding differentials for matriculated and non-matriculated students should be instituted.

In addition, those criteria used currently to fund EOPS and HSPS programs should be evaluated to determine their applicability for a general apportionment mechanism. The existing funding, structure, and delivery of these programs precludes them from immediate integration into a general support mechanism. Both programs reflect the fact that there are excess costs above the basic support rates for serving disadvantaged and handicapped clientele. The development of a comprehensive matriculation process may tend to integrate the services provided for these clientele into college wide services. At the point of the clear identification of cost factors for all components of student services, it may be possible to incorporate the support for these categorical programs into a general support mechanism by including workload measures identifying needed support levels for these clientele.

Maintenance and Operations

Historical expenditures for plant maintenance and operation were analyzed in terms of both expenditures per ADA and expenditures per assignable square feet (ASF). As in the other support categories, historical district wealth tends to dominate differences in district spending patterns for maintenance, explaining more than two-thirds of the differences in district expenditures per ADA. Unlike other support categories, however, another variable accounts for nearly the same amount of variation among districts. This variable is ASF per ADA, which likewise is highly correlated to expenditures per ADA (.80). As indicated by Table 14, the ASF per ADA factor is also clearly related to college size (-.62) and again reflects the economies of scale possible at larger institutions. The inclusion of this factor in the analysis increases the level of variation explained to 78 percent. The ratios of maintenance and service staff to total ADA and to total ASF contribute slightly to the analysis, bringing the level of variation explained to 83 percent.

BASIC WORKLOAD MEASURE

It is recommended that assignable square feet (ASF) be used as the basic workload measure within the maintenance support category. Analysis of maintenance expenditures on a per ASF rather than ADA basis tend to make expenditures per unit of workload far more uniform among districts, as is shown in Table 16. The fact that such a measure already recognizes size related differences is important to note if the ASF measure is to be used as the workload measure for the maintenance area. The analysis shows that larger districts tend to spend somewhat more on a per ASF basis than do smaller districts. It is likely that several factors contribute to this funding. Salaries for maintenance employees in large urban districts may exceed those in more rural settings. The initial development of campus facilities in smaller districts requires a substantially higher ratio of ASF per ADA to house basic institutional support services. Differences in utility costs may also be reflected in such cost differences, although climate clearly contributes as well to differences in utility costs.

OTHER POSSIBLE FACTORS

A number of other factors were used in the analysis, including the percentage of ASF in leased facilities, in pre-1969 facilities, in facilities in need of major remodeling, and in laboratory and special facilities. These factors in their existing form were not statistically significant in explaining differences in district maintenance expenditures per ASF. Nonetheless, age, condition, and types of facilities all influence maintenance costs. As in the other support category areas, additional analysis will be needed if more detailed factors are to be included in the plant maintenance and operations category. Initially, it is recommended that the basic support rate for maintenance needs be adjusted to reflect the amount of ASF in need of major remodeling within individual districts.

General Services

Historical expenditure patterns for the general services category were analyzed in terms of expenditures both per ADA and per total full-time equivalent (FTE) faculty. With respect to expenditures per ADA, the most important variable in explaining differences in district expenditures per ADA is the ratio of total college staff FTE to levels of ADA. Again, as Table 17 shows, this factor is related to average college size within a district. This figure indicates that although there are clear economies of scale in the 5,000-12,000 ADA college size range, there appear to be diseconomies of scale in those districts with the largest institutions. This ratio accounted for about 38 percent of the variations in costs for this category among the districts. The percentage of ASF in laboratory and special facilities increased this percentage to 53 percent. The correlation coefficient between the percentage of lab ASF and the expenditures per ADA in this category was negative (-.59), meaning that districts with a high percentage of laboratory space tended to expend less per ADA in the general institutional support area. While at first such a finding may seem counterintuitive, it may be that such districts expend a greater proportion of their budget in instructional equipment replacement and maintenance. As is the case in the other support categories, district wealth differences play a role in explaining variations in district expenditure patterns per ADA. With this third variable included, the amount of variation explained increases to 66 percent.

OPTION 1

Option 1 within this support category would set levels of revenue as a fixed percent of the revenues derived in the first three support categories. Proponents of this approach argue that the general support services included in this category (such as the business office, personnel, data processing, and central reproduction facilities) provides services for all other areas of college operations. A number of other states have taken this percentage-based approach for general institutional support, rather than developing a separate workload measure for the category. Due to differences among district expenditure reporting in this category, it is difficult to establish workload measures and support levels on the basis of analysis of historical data. Likewise, the determination of a percentage rate for this category is difficult due to the same variations in district reporting practices. Without its own workload measure, the revenues derived for this category are, in essence, driven by a combination of the workload measures in the 3 other areas of support. As such, revenues in this category may be more responsive to student workload changes than if a separate workload measure were established.

OPTION 2

Option 2 proposes using a workload measure for the general institutional services of full-time equivalent (FTE) faculty. This reduces the size factor differences among the districts due to the size related differences in student/faculty ratios noted within the instructional area. Advocates of this option reason that the FTE faculty measure, will cushion general institutional fixed costs against changes in student workload.

In addition, some proponents of this approach feel that the FTE faculty measure would provide some more uniform relationships in faculty/administration ratios among districts. They also argue that a substantial majority of the costs being supported by the general institutional services area are for direct instruction and instructionally-related services, and that the FTE faculty measure best relates to costs in these areas.

C. Levels of Support

At this stage in the analysis, the development of support levels for each of the four support categories and basic workload measures must be related back to 1982-83 revenue levels within the districts. In the development of these comparative levels of support, it is assumed that the relative proportion of revenues to be distributed through the differential funding mechanism to each of the four support areas is equal to the relative proportion of district expenditures in these four areas in 1982-83. As noted previously, the planned implementation of a differential funding system would require additional analysis of historical funding patterns within these four categories and the adjustment of the levels of support upward to reflect adequate levels of support in the year of implementation. The development of the support rates will allow for a comparison of a possible differential funding structure with the actual general apportionment received by districts in 1982-83.

The following levels of support are for illustrative purposes only, to allow for a comparison of actual 1982-83 general apportionment revenues to several possible options for a differential funding mechanism. These levels are designed to keep the total revenues distributed in the district simulations equal to the total general apportionment amount in 1982-83. As such, the support levels do not reflect adequate levels of support for actual implementation of a differential funding mechanism. The only use of these support levels is to allow for an analysis of the impact of possible funding options on individual districts. As such, the support categories, workload measures, and support levels described in this section form the basis for the comparative simulations discussed in the following section of the report.

Instruction

Option 1:

Basic Support Rate:	$1,532	per High Cost Disciplines
	$1,276	per Middle Cost Disciplines
	$1,021	per Low Cost Disciplines
Size Adjustment:	$ 80	per 1,000 FTSE For districts under 6,000 FTSE

Option 2:

Basic Support Rate:	$ 880	per noncredit FTSE
	$1,303	per credit FTSE
	$1,706	per apprenticeship FTSE
Size Adjustment:	$ 80	per 1,000 FTSE For districts under 6,000 FTSE (Credit)
Need Adjustment:	$ 0	per FTSE For student/faculty ratios
	$ 0	per FTSE For full-time faculty percent

Student Services

Basic Support Rate:	$ 83	per headcount enrollment
Size Adjustment:	$ 20	per 1,000 enrollment For districts under 6,000 FTSE
Need Adjustment:	$ 30	per financial aid recipient

Maintenance and Operations

Basic Support Rate:	$ 5.27	per ASF
Size Adjustment:	$	None
Need Adjustment:	$ 2.40	per ASF in need of major remodeling

General Services

Option 1:

Basic Support Rate:	17.3% of budget
Size Adjustment:	2.0% per 1,000 FTSE For districts under 6,000 FTSE
Need Adjustment:	None

Option 2:

Basic Support Rate:	$7,114 per FTE faculty
Size Adjustment:	$ 257 per FTE faculty For districts with average college size per 15,000 FTSE
Need Adjustment:	None

D. Analysis of Impact on Individual Districts

A comparison of district specific revenues received in 1982-83 with estimated revenues for the proposed differential funding system (including budget stability and equalization provisions) was reviewed with the Advisory Committee at its October 5, 1984, meeting. Based on suggested changes at that meeting, comparative estimates of individual district revenues are provided for support category options and levels of support described in the previous sections of this chapter. Total revenue estimates for these options are compared to district actual 1982-83 general apportionment revenues.

Limitations of Current Simulations

As noted previously, these simulations are based on 1982-83 levels of general apportionment and, therefore, do not adequately reflect current need levels of support for the community colleges. Proposed levels of support must be increased before any implementation of a differential funding system mechanism. These simulations also assume that the proportion of revenues allocated to each of the four major support categories would be equal to the expenditures in the four categories as reported by districts for 1982-83 on the CCFS-311 fiscal report. Additional analysis of expenditure patterns and levels of support over the past several years will be necessary before implementation of a differential funding mechanism.

The simulations also use available data from existing reporting sources. As noted in Chapter 4, there are problems with the consistency of reporting by districts within the existing reporting systems. In addition, some districts may not have reported all of the data needed to complete the simulations. Such instances required that proxy data based on other district characteristics, historical reporting or statewide average distributions be developed for the simulations. Other elements of the simulations, such as the number of student financial aid recipients, are based on survey data because they are the best data available for the 1982-83 analysis. Clearly, the steps indicated in Chapter 4 to improve the data reporting procedures are necessary before actual implementation of a differential funding mechanism if the mechanism is to provide an equitable distribution of funds.

The simulations described in this section present a limited set of options for a differential funding system. Only two overall mechanisms are assessed within these simulations. Clearly, there are many possible alternative options that could be assessed. These two options reflect the work of the Advisory Committee in identifying support categories, workload measures, and support levels. The committee has been extremely useful in narrowing the range of possible options. The two proposals presented must be viewed as preliminary, however, in that the identification of other possible measures of need and improved data reporting could revise the outcomes of the simulations substantially.

As noted previously in the report, there continue to be major differences in the reporting of expenditure data among districts. This is particularly true between the instruction and instructional services categories and the general institutional services category. These reporting differences make difficult comparison of revenue estimates within each of the four support categories. Comparisons of total revenue estimates to 1982-83 actuals (Table 20) are, therefore, the most appropriate basis for individual district analysis. The detailed information contained for each of the four support categories has been provided for background information and discussion purposes.

It should be noted that the budget stability measures included as part of the planned implementation of a differential funding system have been included in these simulations. These provisions specify that no district would lose base revenues or normal inflationary increases due to the implementation of the differential funding system. Rather, districts with identified needs above current support levels would be equalized upward to those identified support levels as funds are made available for equalization purposes. This provision would continue the basic equalization structure instituted in SB 851 and should provide budget stability through the transition period.

There are several reasons for instituting such budget stability measures. First, all districts have a need for increased stability in revenue expectations. The many changes in community college finance mechanisms over the last decade have meant much budget uncertainty for districts. Second, the levels of funding provided to colleges over the past several years have not been adequate to keep up with inflationary cost increases.

All districts have been underfunded during these years of budget constraints. Finally, the historic circumstances of individual districts and prior local board decisions should be addressed by the funding mechanism, but not by lowering existing levels of district support.

In all, these preliminary simulations are designed to allow for the analysis of the fiscal effects of moving to a differential funding system over time. They provide likely trends and patterns of funding, given the limitations described above. The simulations are not meant to predict revenue levels for actual implementation of a differential funding system. Future simulations will attempt to use improved data and provide estimates of possible district revenues at the time of proposed implementation.

Total Revenues

Table 20 summarizes total revenues by district for 1982-83 actual and two possible options for implementing a differential funding system. Both options presented use the funding mechanism for student services and plant maintenance described in a previous section of this chapter. Option One utilizes Option 1 as presented for both the Instructional Support and General Institutional Services categories. Option Two uses the second option for funding described in these two categories.

As noted earlier, no district would lose revenue in the transition to a differential funding system. All districts, therefore, receive 100% of 1982-83 revenues in these simulations. For those districts receiving additional revenues under the two options, the dollar amounts and percentage increases are noted, and the dollar amount above 1982-83 actual revenues are shown in columns labeled "Equal 1" and "Equal 2." These simulations show that it would have cost about $45 million in 1982-83 to implement the two funding models, guarantee district revenues at 100 percent, and to fully fund the equalization costs identified by the differential funding models.

Instruction

Table 21 indicates instructional revenues for individual districts based on 1982-83 actual revenues and compares them to the two funding options within the instructional support category. Amounts per ADA are indicated for revenues from actual and both options.

Student Services

Table 22 indicates student services revenues for individual districts based on 1982-83 actual revenues and compres them to the student services mechanism described above. This mechanism contains 3 components: (1) base amount, (2) size adjustments, and (3) need adjustment (based on financial aid recipients). The percentages of the total amount which are included in these three components are indicated in the table. Revenues per headcount student for both actual revenues and the proposed mechanism are included in the table.

Maintenance

Table 23 indicates maintenance revenues for individual districts based on 1982-83 actual revenues and compares them to the maintenance funding provisions described above. This mechanism contains a base amount and a need adjustment (based on the number of ASF in need of major remodeling). The percentage of the total amount which are included in these two components are indicated in the table. Revenues per ASF for the maintenance area are indicated for both actual and the proposed funding mechanism.

Institutional Services

Table 24 indicates institutional services revenues for individual districts based on 1982-83 actual revenues and compares them to the two funding options within the institutional services support category. Amounts for general institutional services are shown per full-time equivalent (FTE) faculty and as a percentage of total budget. Revenues under each of the options may be compared to actual revenue amounts.

TABLE 10

STUDENT FACULTY RATIO
(ADA/FTE Faculty)
By Average College Size

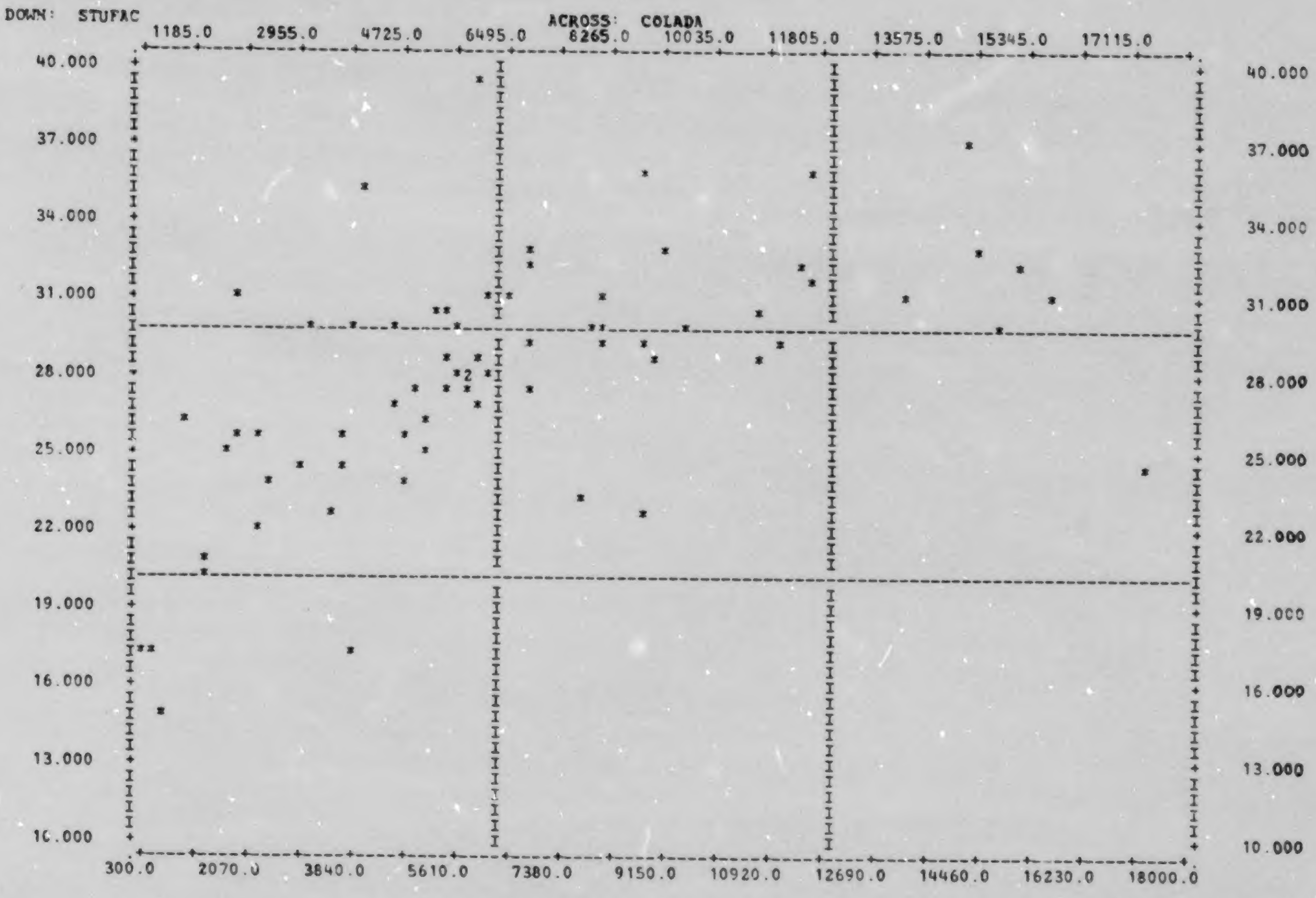

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TABLE 11

INSTRUCTIONAL EXPENDITURE PER ADA
By Average College Size

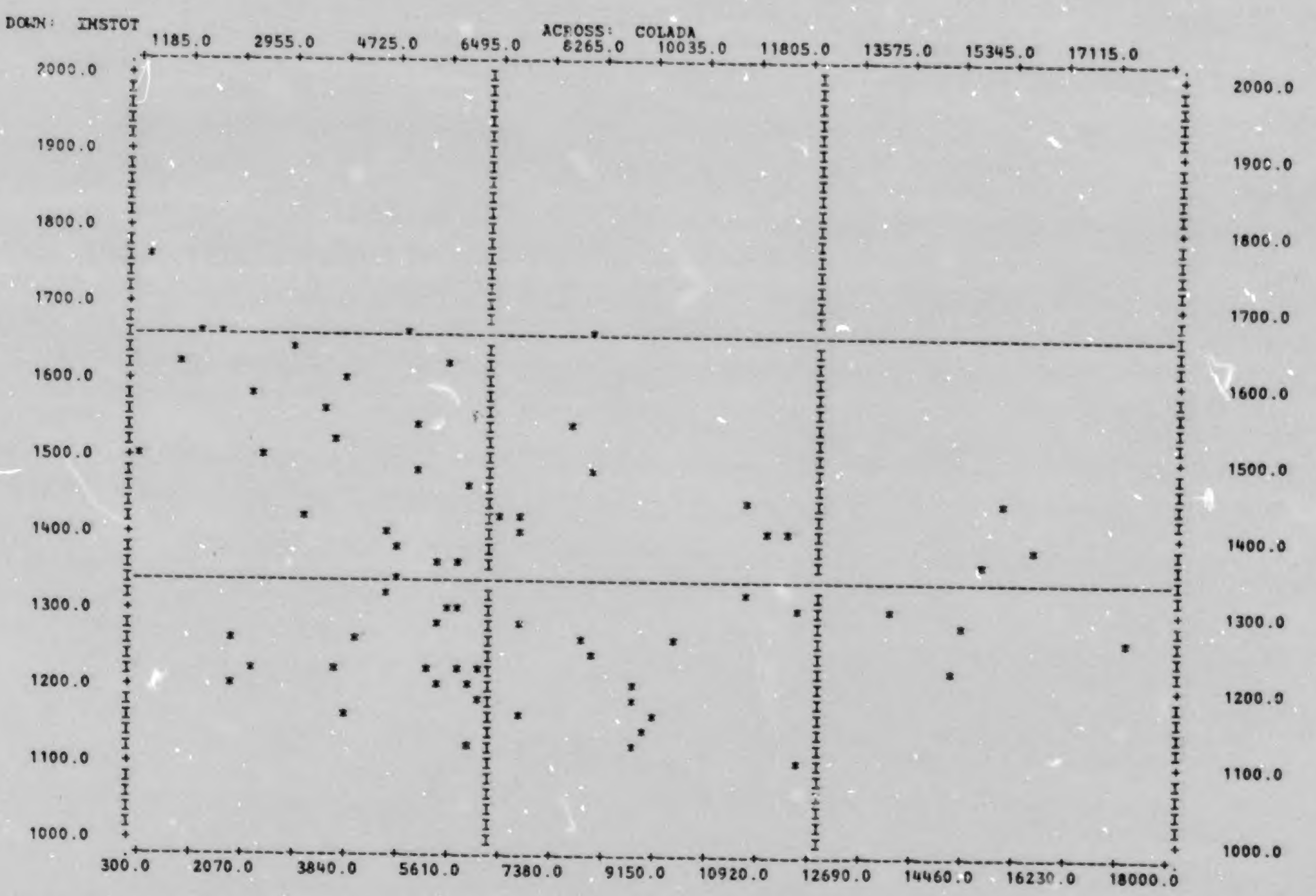

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TABLE 12

STUDENT SERVICES EXPENDITURES PER ADA
By Average College Size

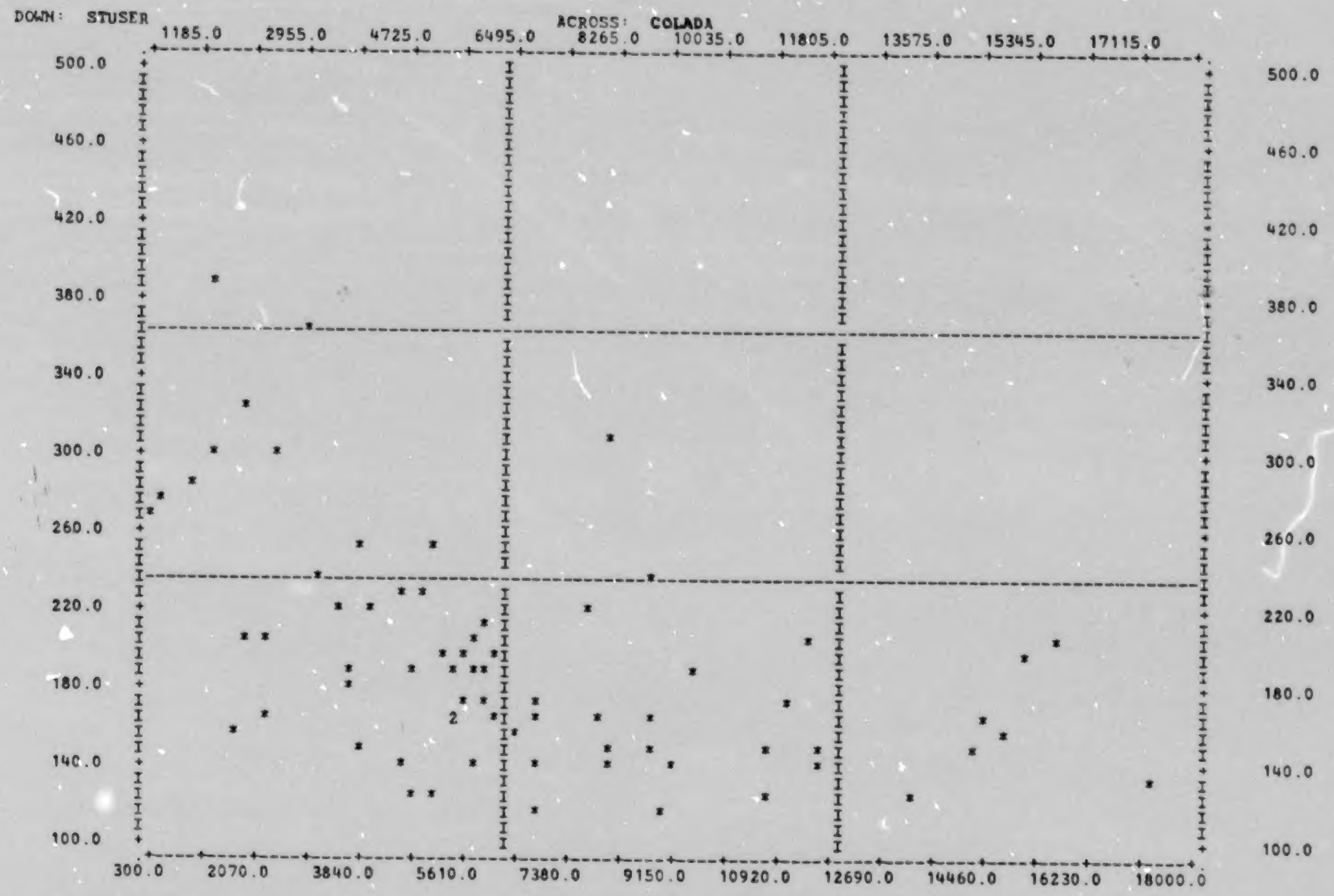

TABLE 13

STUDENT SERVICES EXPENDITURES PER HEADCOUNT
By Average College Size

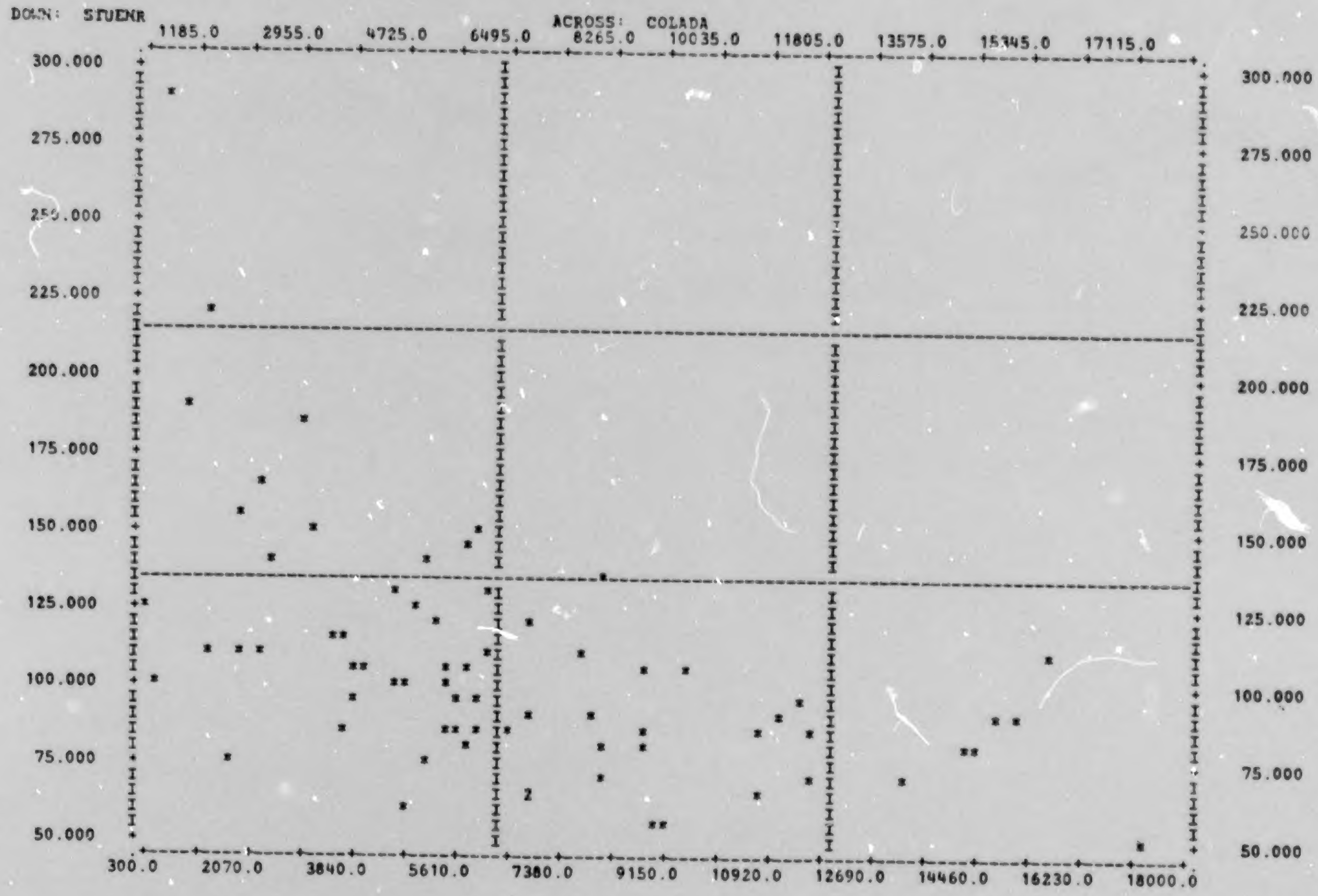

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TABLE 14

ASSIGNABLE SQUARE FEET (ASF) PER ADA
By Average College Size

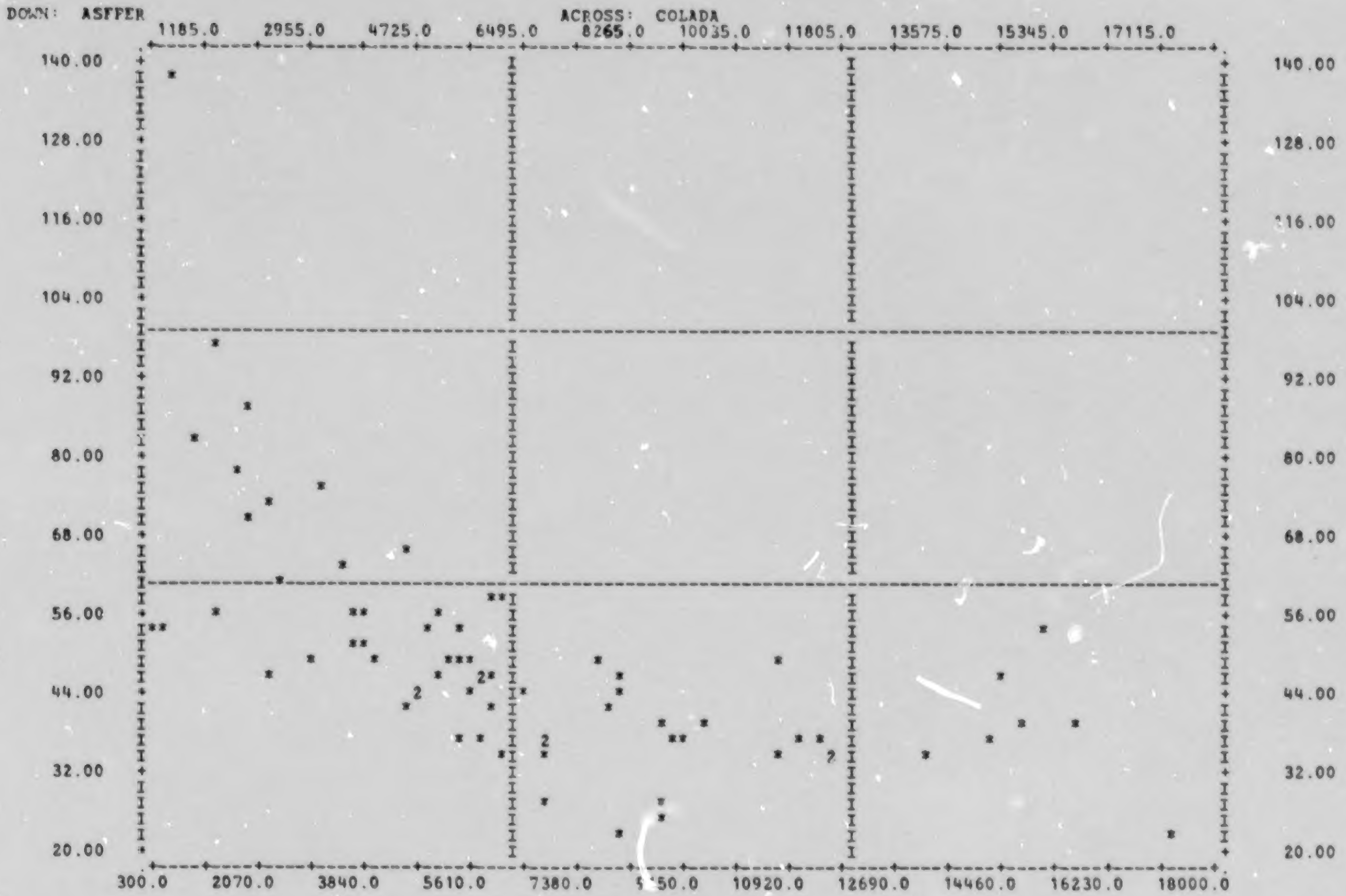

TABLE 15

MAINTENANCE EXPENDITURES PER ADA
By Average College Size

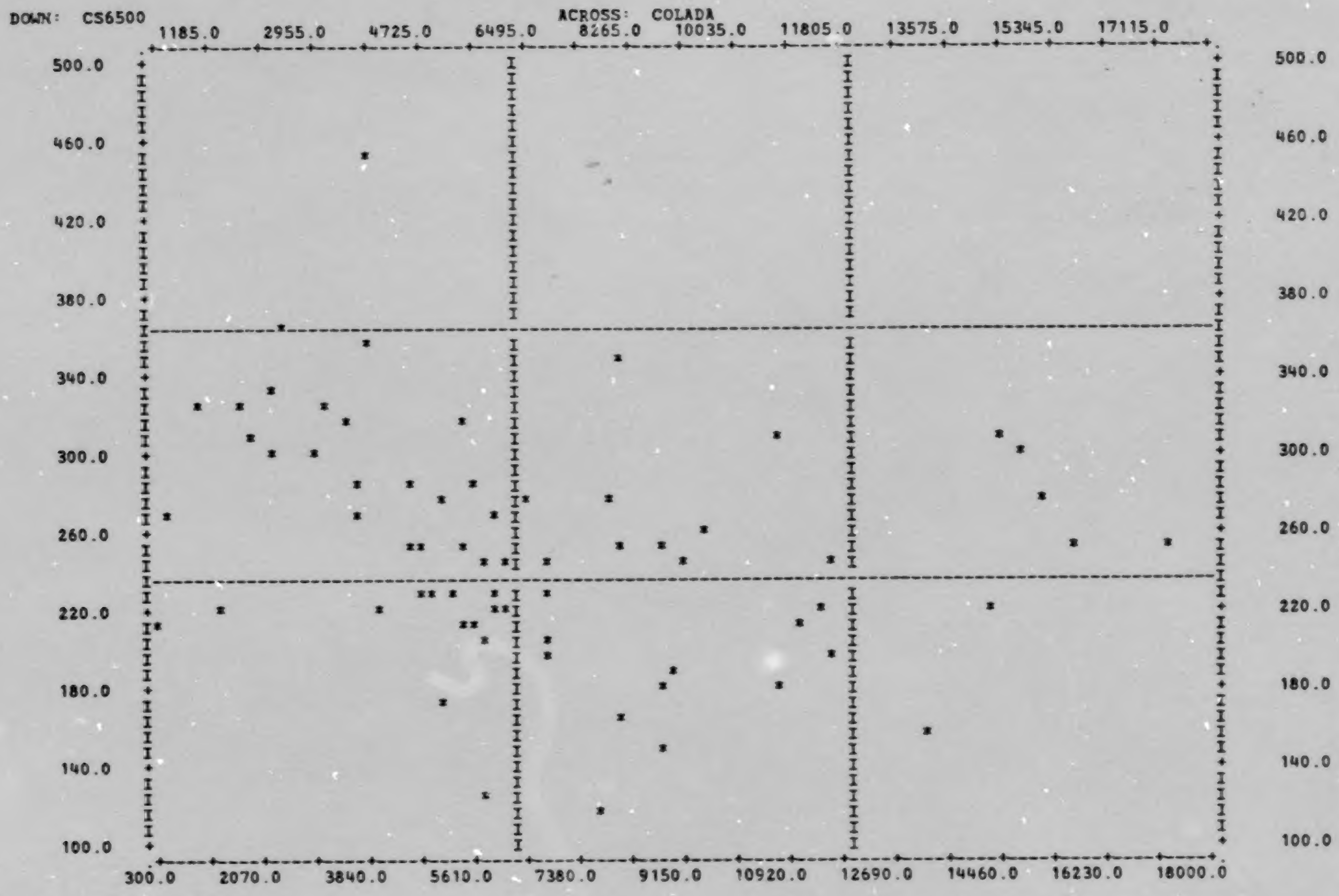

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TABLE 16

MAINTENANCE EXPENDITURES PER ASF
By Average Class Size

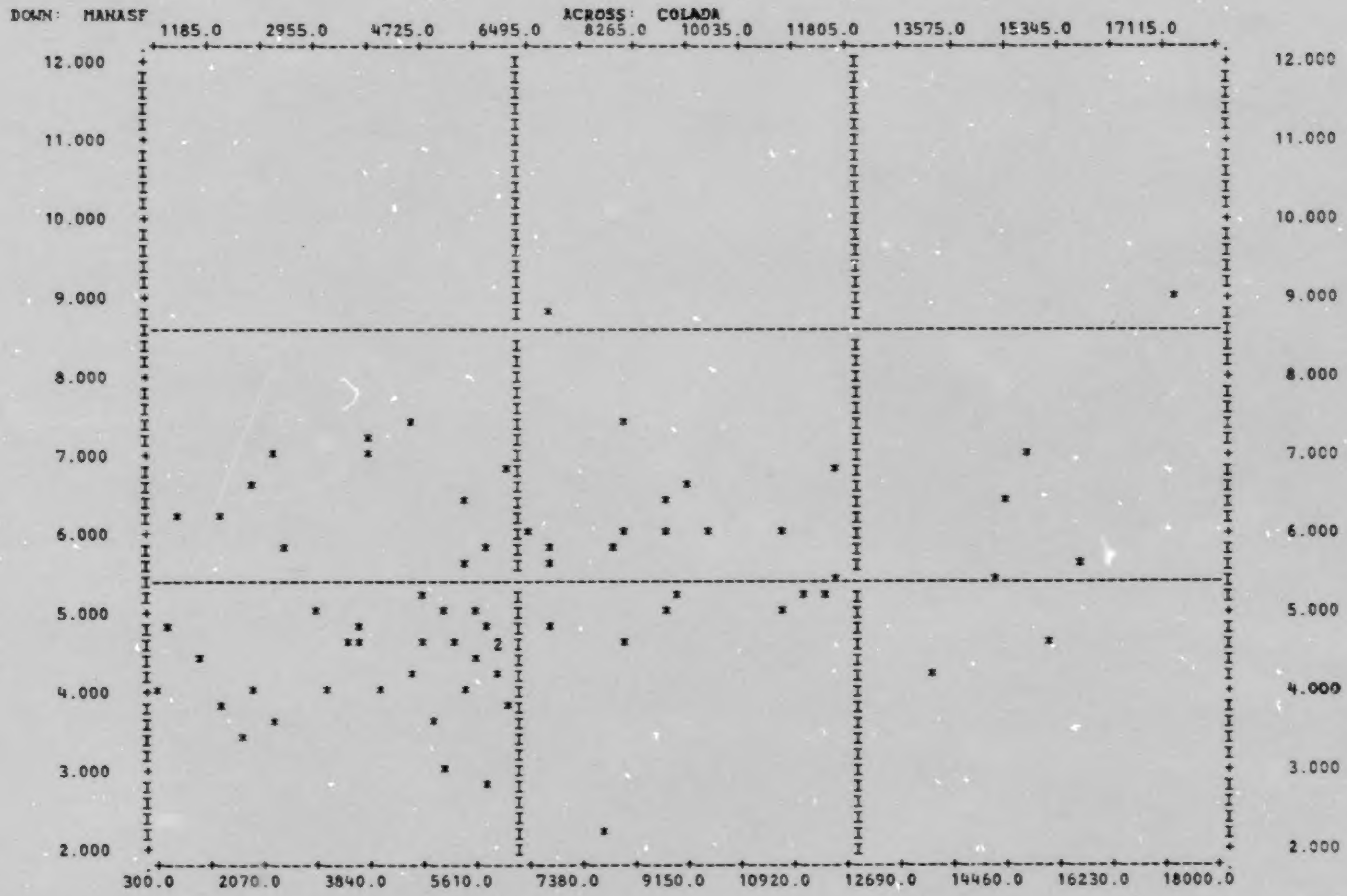

TABLE 17

ADA PER TOTAL STAFF FTE
By Average College Size

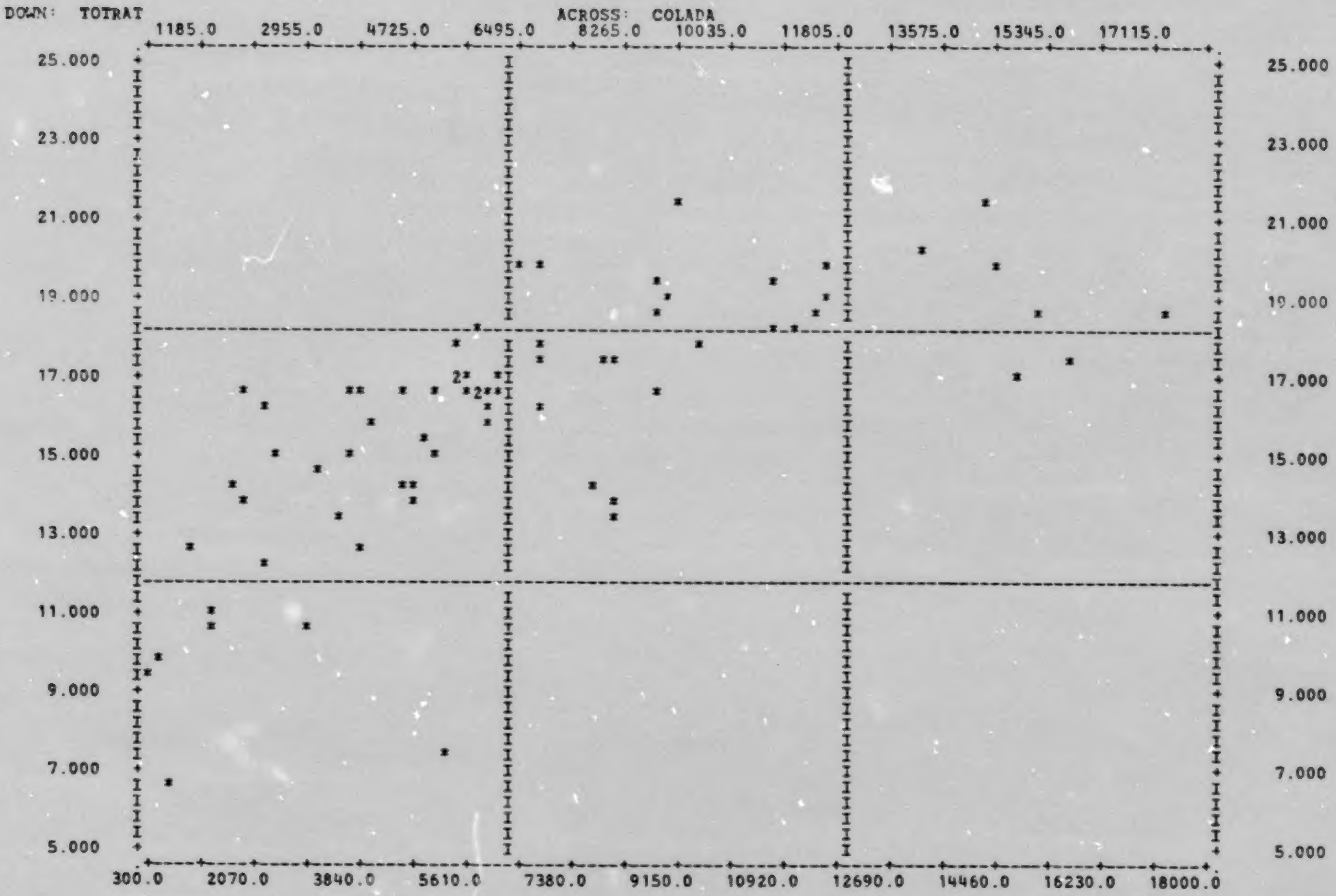

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TABLE 18

GENERAL INSTITUTIONAL SERVICES
EXPENDITURES PER ADA
By Average College Size

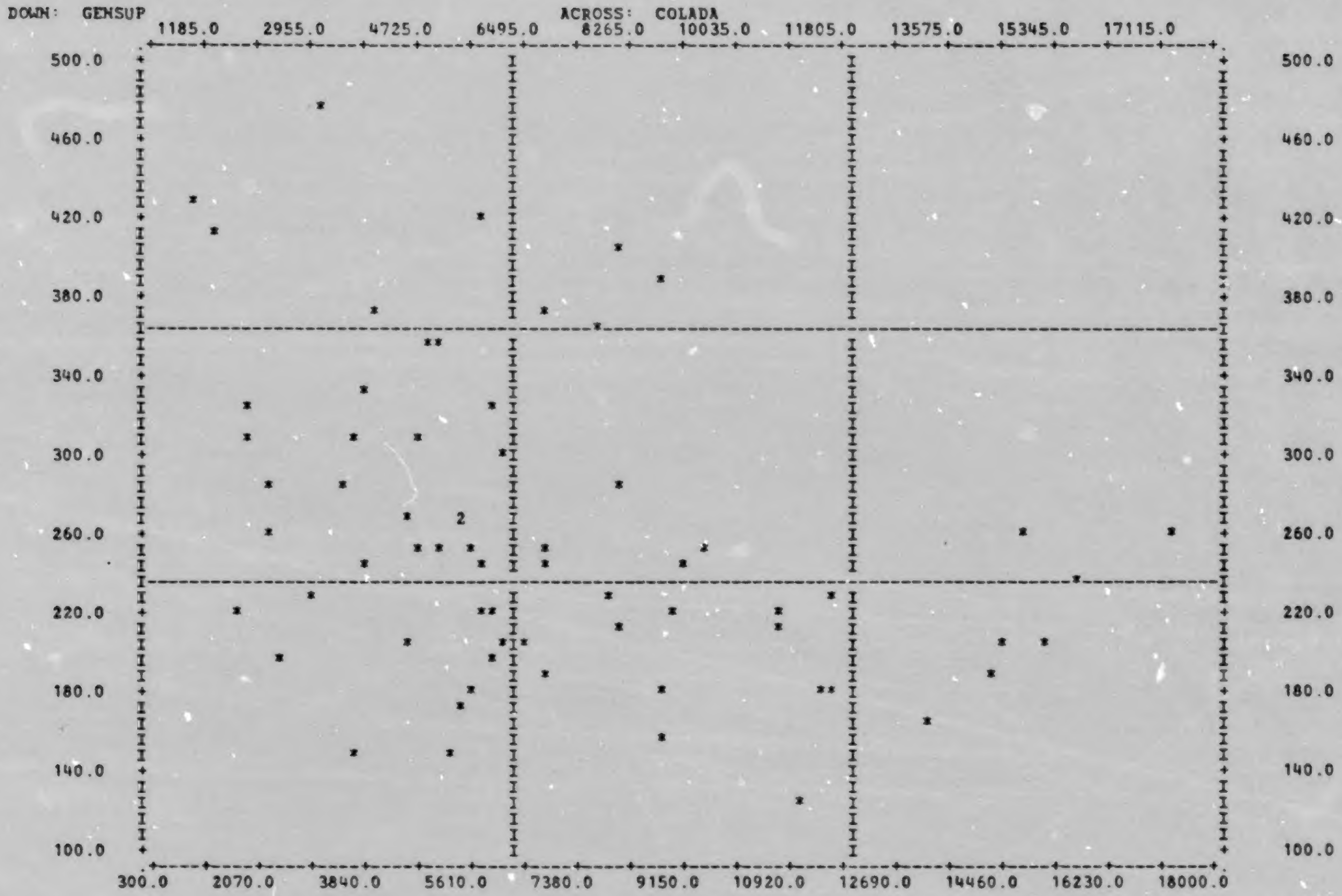

TABLE 19

GENERAL INSTITUTIONAL SERVICES EXPENDITURES
PER FTE FACULTY
By Average College Size

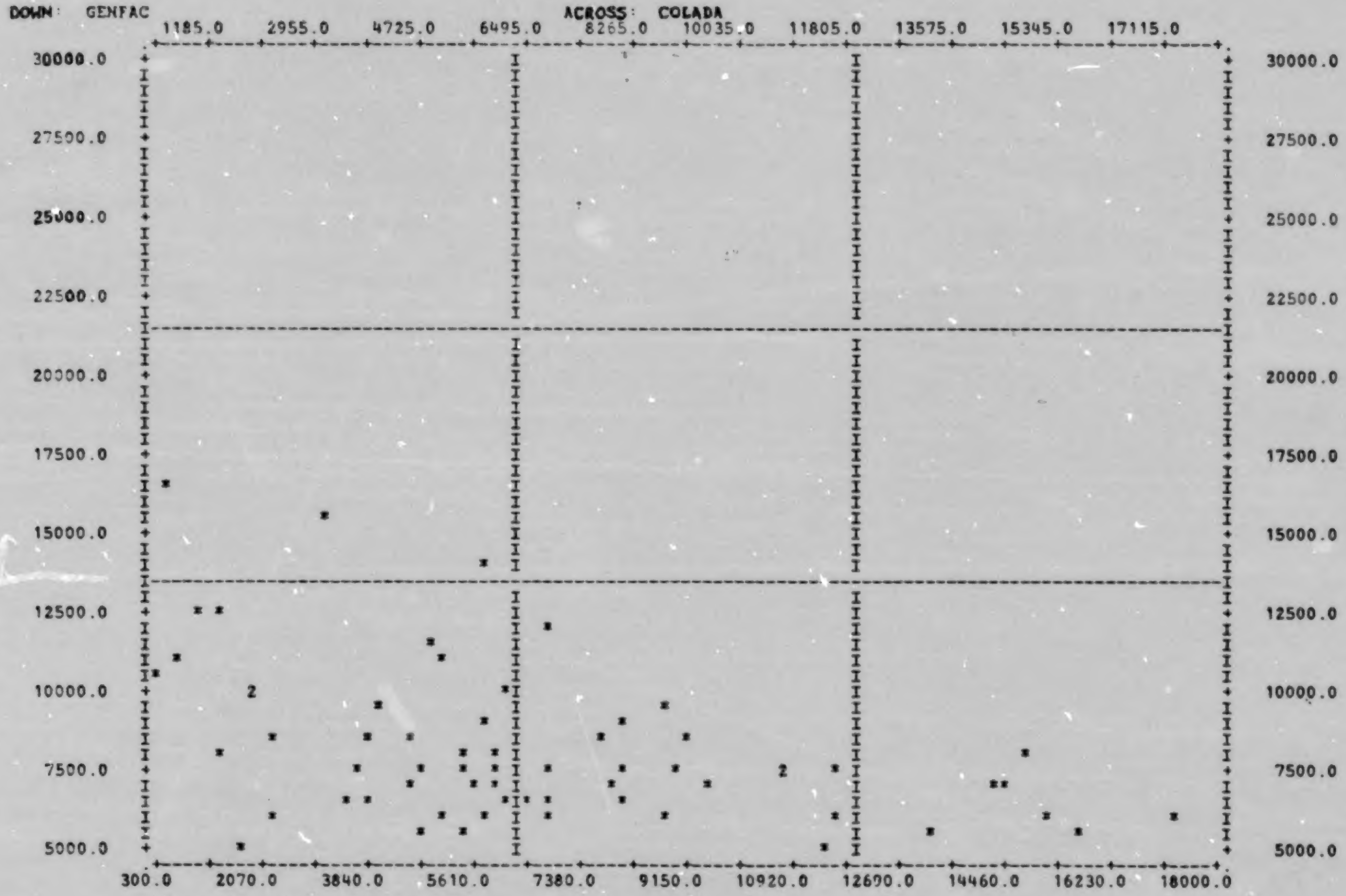

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TABLE 20
TOTAL REVENUES PER ADA
FISCAL YEAR 1982-83

DISTRICT NAME	1982-83 ADA	FALL 82 ENROLL	1982-83 REVENUE	OPTION ONE	OPTION TWO	% OPT ONE	% OPT TWO	EQUAL 1	EQUAL 2
ALLAN HANCOCK	6662	10321	12029000	12029000	12029000	100.00	100.00		
ANTELOPE VALLEY	3667	7290	6281000	8488369	8462424	135.14	134.73	2207369	2181424
BARSTOW	959	1705	3015000	3015000	3015000	100.00	100.00		
BUTTE	6035	8994	10874000	10874000	11039822	100.00	101.52		165822
CABRILLO	6505	11458	12288000	12584089	13108042	102.41	106.67	296089	820042
CERRITOS	13027	24170	23111000	23977753	23815199	103.75	103.05	866753	704199
CHAFFEY	7558	13850	15422000	15422000	15422000	100.00	100.00		
CITRUS	5776	10052	10233000	11170171	11686944	109.16	114.21	937171	1453944
COACHELLA VALLEY	3685	7793	8784000	9083721	8906472	103.41	101.39	299721	122472
COAST	31738	62673	61563000	61563000	61563000	100.00	100.00		
COMPTON	3031	4564	7083000	7569537	7366962	106.87	104.01	486537	283962
CONTRA COSTA	19055	33975	37963000	37963000	37963000	100.00	100.00		
EL CAMINO	14226	29597	28200000	28313576	28200000	100.40	100.00	113576	
FOOTHILL-DEANZA	21944	37047	41151000	41151000	41151000	100.00	100.00		
FREMONT NEWARK	4594	8292	9206000	9560555	10013903	103.85	108.78	354555	807903
GAVILAN	2272	3182	4833000	5913553	5707167	122.36	118.09	1080553	874167
GLENDALE	7308	15357	12669000	13311255	13477681	105.07	106.38	642255	808681
GROSSMONT	10365	18193	20300000	20479084	20604185	100.88	101.50	179084	304185
HARTNELL	4408	7052	9559000	10212828	9903341	106.84	103.60	653828	344341
IMPERIAL	2936	4678	6050000	6996349	7061973	115.64	116.73	946349	1011973
KERN	10015	18474	22795000	24888349	24435209	109.18	107.20	2093349	1640209
LAKE TAHOE	528	1491	1737000	1737000	1737000	100.00	100.00		
LASSEN	2046	2605	4317000	4911933	4857589	113.78	112.52	594933	540589
LONG BEACH	14940	25303	27742000	27757921	27926962	100.06	100.67	15921	184962
LOS ANGELES	70614	135529	160173000	160173000	160173000	100.00	100.00		
LOS RIOS	26933	46482	50050000	50050000	51488594	100.00	102.87		1438594
MARIN	7258	10569	15108000	16552013	16195105	109.56	107.20	1444013	1087105
MENDOCINO	1367	3564	3711000	3998588	3941595	107.75	106.21	287588	230595
MERCED	5649	8368	10390000	10860665	10640308	104.53	102.41	470665	250308
MIRA COSTA	4431	8515	10440000	10440000	10440000	100.00	100.00		
MONTEREY PEN	5034	8405	9312000	10272506	10453971	110.31	112.26	960506	1141971
MT SAN ANTONIO	14239	28453	27321000	27894588	27321000	102.10	100.00	573588	
MT SAN JACINTO	1673	3678	3880000	4857466	4569718	125.19	117.78	977466	689718
NAPA VALLEY	4682	8973	8641000	9925983	9847580	114.87	113.96	1284983	1206580
NORTH ORANGE	25794	66611	48044000	49666596	48044000	103.38	100.00	1622596	
PALOMAR	10636	18881	19353000	19724703	19581808	101.92	101.18	371703	228808
PALO VERDE	338	763	939000	1025387	1042069	109.20	110.98	86387	103069
PASADENA	13825	22588	27156000	27156000	27156000	100.00	100.00		
PERALTA	19697	38993	38399000	43889707	45084015	114.30	117.41	5490707	6685015
RANCHO SANTIAGO	14882	32808	28607000	28607000	28607000	100.00	100.00		
REDWOODS	4957	8026	10639000	10776181	10689176	101.29	100.47	137181	50176
RIO HONDO	7292	11850	13667000	14088322	13959992	103.08	102.14	421322	292992
RIVERSIDE	8552	15696	15072000	15894633	16206551	105.46	107.53	822633	1134551
SADDLEBACK	13321	24560	29386000	29386000	29386000	100.00	100.00		
SAN BERNARDINO	10953	19720	21170000	21625415	22310440	102.15	105.39	455415	1140440
SAN DIEGO	34244	62239	59654000	60548912	59654000	101.50	100.00	894912	
SAN FRANCISCO	31909	70104	53477000	57770300	53477000	108.03	100.00	4293300	
SANJOAQUIN DELTA	10302	17173	19500000	19992870	19500000	102.53	100.00	492870	
SAN JOSE	10475	21787	22377000	22377000	22377000	100.00	100.00		
SAN LUIS OBISPO	3739	5893	7295000	8449591	8322718	115.83	114.09	1154591	1027718
SAN MATEO	16202	30518	33982000	33982000	33982000	100.00	100.00		
SANTA BARBARA	8609	18752	15041000	17188733	16059182	114.28	106.77	2147733	1018182
SANTA CLARITA	1908	3487	4515000	5381739	5162097	119.20	114.33	866739	647097
SANTA MONICA	10659	23001	19086000	20487022	20226445	107.34	105.98	1401022	1140445
SEQUOIAS	4926	7326	9710000	10355740	10514821	106.65	108.29	645740	804821
SHASTA	5430	8948	10707000	11014133	11029585	102.87	103.01	307133	322585
SIERRA	5800	10006	11222000	11222000	11301409	100.00	100.71		79409
SISKIYOUS	1518	2862	3304000	4438036	4193154	134.32	126.91	1134036	889154
SOLANO	5157	9799	9425000	10399081	10769551	110.34	114.27	974081	1344551
SONOMA	12418	22313	22043000	23497734	22433478	106.60	101.77	1454734	390478
SOUTH COUNTY	10042	21728	20291000	20291000	20291000	100.00	100.00		
SOUTHWESTERN	7729	12333	13322000	14247342	14646631	106.95	109.94	925342	1324631
STATE CENTER	11803	18179	23334000	23844598	23749062	102.19	101.78	510598	415062
VENTURA	17087	30729	32114000	32114000	33130045	100.00	103.16		1016045
VICTOR VALLEY	2390	5012	5452000	6355760	6156790	116.58	112.93	903760	704790
WEST HILLS	1209	2152	4380000	4380000	4380000	100.00	100.00		
WEST KERN	505	959	2708000	2708000	2708000	100.00	100.00		
WEST VALLEY	12560	27617	24209000	24229718	24730479	100.09	102.15	20718	521479
YOSEMITE	9544	15018	20585000	20585000	20585000	100.00	100.00		
YUBA	5728	8430	12356000	12356000	12356000	100.00	100.00		
	717300	1348518	1408752000	1454054104	1448327243			45302104	39575243

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TABLE 21
INSTRUCTION EXPENDITURES PER ADA
FISCAL YEAR 1982-83
OPTION 1

DISTRICT NAME	INSTR EXP PER ADA	1982-83 ADA	INSTR DOLLARS	INSTR RATE	TOTAL AMT 1	AMT PER ADA 1	TOTAL AMT 2	AMT PER ADA 2
ALLAN HANCOCK	1173	6662	8127133	1246	8303422	1246	8244896	1238
ANTELOPE VALLEY	1139	3667	4211398	1280	5367491	1464	5438844	1483
BARSTOW	1809	959	1839297	1243	1574642	1642	1631873	1702
BUTTE	1144	6035	7037177	1267	7645173	1267	7612343	1261
CABRILLO	1248	6505	8511777	1287	8370083	1287	8458249	1300
CERRITOS	1114	13027	15917167	1245	16223367	1245	16890427	1297
CHAFFEY	1382	7558	10650170	1255	9487705	1255	9484717	1255
CITRUS	1096	5776	6603534	1232	7113613	1232	7526128	1303
COACHELLA VALLEY	1398	3685	5353167	1308	5460272	1482	5213966	1415
COAST	1400	31738	45177771	1256	39857533	1256	41116465	1295
COMPTON	1304	3031	4078791	1245	4470861	1475	4645553	1533
CONTRA COSTA	1350	19055	26299113	1256	23924977	1256	24828665	1303
EL CAMINO	1264	14226	19000000	1251	17792814	1251	18532248	1303
FOOTHILL-DEANZA	1270	21944	29451649	1265	27753976	1265	28593032	1303
FREMONT NEWARK	1247	4594	5941774	1247	6183669	1346	6440237	1402
GAVILAN	1439	2272	3307677	1259	3533479	1555	3467002	1526
GLENDALE	984	7308	8635273	1254	9162683	1254	8806608	1205
GROSSMONT	1214	10365	13081538	1285	13829644	1334	13956243	1346
HARTNELL	1441	4408	6587624	1300	6233918	1414	6247194	1417
IMPERIAL	1298	2936	3917387	1275	4445234	1514	4526020	1542
KERN	1445	10015	14937305	1284	14903110	1488	14727951	1471
LAKE TAHOE	1718	528	924203	1252	891637	1689	918699	1740
LASSEN	1183	2046	2406782	1278	3238453	1593	3259472	1593
LONG BEACH	1176	14940	18516805	1253	18716339	1253	19053549	1275
LOS ANGELES	1354	70614	98033879	1265	89346076	1265	92003697	1303
LOS RIOS	1137	26933	32125475	1264	34036383	1264	35093699	1303
MARIN	1353	7258	9999681	1251	10416428	1435	10119151	1394
MENDOCINO	1613	1367	2211093	1276	2250861	1647	2274735	1664
MERCED	1126	5649	6666177	1283	7282189	1289	7132263	1263
MIRA COSTA	1493	4431	6703226	1247	6059131	1367	5982578	1350
MONTEREY PEN	1198	5034	6543382	1267	6659004	1323	6816777	1354
MT SAN ANTONIO	1247	14239	17562580	1273	18128910	1273	18017053	1265
MT SAN JACINTO	1177	1673	2227473	1293	2712738	1621	2729734	1632
NAPA VALLEY	1263	4682	6022515	1278	6444851	1377	6097091	1302
NORTH ORANGE	1133	25794	31334221	1262	32564061	1262	31367682	1216
PALOMAR	1287	10636	14218739	1275	13560621	1275	13585450	1277
PALO VERDE	1513	338	537086	1209	561151	1660	580810	1718
PASADENA	1207	13825	17812561	1273	17598231	1273	17394280	1258
PERALTA	1154	19697	23423945	1257	27824484	1413	28549369	1449
RANCHO SANTIAGO	1241	14882	20138678	1256	18693061	1256	18064295	1214
REDWOODS	1461	4957	7399529	1275	6693359	1350	6802376	1372
RIO HONDO	1151	7292	9378192	1295	9446011	1295	9244715	1268
RIVERSIDE	1156	8552	10127163	1268	10840271	1268	11114492	1300
SADDLEBACK	1435	13321	19431134	1269	16909121	1269	17215135	1292
SAN BERNARDINO	1126	10953	12723364	1279	14314284	1307	14579319	1331
SAN DIEGO	1026	34244	36109777	1257	43039606	1257	39454256	1152
SAN FRANCISCO	1025	31909	35464579	1269	40479518	1269	35054767	1099
SANJOAQUIN DELTA	1208	10302	12934870	1288	13271518	1288	13362171	1297
SAN JOSE	1255	10475	14867189	1279	13463235	1285	13711356	1309
SAN LUIS OBISPO	1161	3739	4415395	1289	5476784	1465	5529084	1479
SAN MATEO	1471	16202	24911962	1255	20791848	1283	21572639	1331
SANTA BARBARA	1151	8609	10256875	1343	11565165	1343	10530998	1223
SANTA CLARITA	1203	1908	2347254	1278	3057020	1602	3104163	1627
SANTA MONICA	1063	10659	12276701	1290	13750467	1290	13624302	1278
SEQUOIAS	1267	4926	6477520	1287	6687908	1358	6731574	1367
SHASTA	1321	5430	7235756	1264	7091652	1306	7167731	1320
SIERRA	1238	5800	7226018	1277	7481307	1290	7571567	1305
SISKIYOUS	1357	1518	2326485	1302	2496077	1644	2450845	1615
SOLANO	1118	5157	6136014	1252	6668705	1293	6923895	1343
SONOMA	1232	12418	16393852	1290	16016456	1290	15293623	1232
SOUTH COUNTY	1233	10042	14188520	1247	12526459	1247	13074997	1302
SOUTHWESTERN	1096	7729	8680430	1257	9716174	1257	10065388	1302
STATE CENTER	1230	11803	14967129	1296	15301583	1296	15221953	1290
VENTURA	1228	17087	21601059	1270	21886237	1281	22143499	1296
VICTOR VALLEY	1420	2390	3462135	1288	3759354	1573	3731508	1561
WEST HILLS	2000	1209	2626289	1283	2004336	1658	2012694	1665
WEST KERN	2288	505	1491683	1281	863143	1709	840891	1665
WEST VALLEY	1208	12560	16343629	1271	15962375	1271	16246817	1294
YOSEMITE	1429	9544	13854164	1293	13222942	1385	13138339	1377
YUBA	1422	5728	8311524	1261	7294579	1273	7511572	1311
		717300	930506515		930699831		930455712	

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TABLE 22
STUDENT SERVICES EXPENDITURES PER ENR
FISCAL YEAR 1982-83

DISTRICT NAME	STU SER EXP PER ENR	FALL 82 ENROLL	STU SER DOLLARS	BASE PER	SIZE PER	NEED PER	TOTAL AMT	AMT PER STU
ALLAN HANCOCK	119	10321	1230319	97.9	0.0	2.1	871331	84
ANTELOPE VALLEY	87	7290	636007	63.4	35.2	1.4	953950	131
BARSTOW	190	1705	324449	44.5	53.5	2.0	317735	186
BUTTE	129	8994	1158853	94.0	0.0	6.0	792217	88
CABRILLO	88	11458	1008215	95.5	0.0	4.5	995877	87
CERRITOS	78	24170	1879470	99.0	0.0	1.0	2026373	84
CHAFFEY	108	13850	1500706	97.7	0.0	2.3	1173932	85
CITRUS	95	10052	958311	98.2	0.0	1.8	849286	84
COACHELLA VALLEY	107	7798	831009	64.3	33.7	2.0	1004197	129
COAST	63	62673	3977917	98.2	0.0	1.8	5295338	84
COMPTON	150	4564	684613	54.6	37.8	7.6	693647	152
CONTRA COSTA	83	33975	2823694	97.3	0.0	2.7	2897475	85
EL CAMINO	89	29597	2626667	97.7	0.0	2.3	2514183	85
FOOTHILL-DEANZA	87	37047	3229744	96.9	0.0	3.1	3173301	86
FREMONT NEWARK	98	8292	811645	76.0	22.6	1.3	905004	109
GAVILAN	109	3182	345515	51.2	45.7	3.1	515051	162
GLENDALE	107	16357	1747703	97.4	0.0	2.6	1386867	85
GROSSMONT	107	18193	1950936	84.7	12.5	2.7	1781327	98
HARTNELL	98	7052	689518	72.0	24.8	3.2	812791	115
IMPERIAL	186	4678	868398	55.0	39.5	5.5	706150	151
KERN	115	18474	2122922	60.6	37.3	2.1	2528661	137
LAKE TAHOE	98	1491	145404	42.9	56.4	.7	288580	194
LASSEN	166	2605	431486	50.3	46.2	3.5	429653	165
LONG BEACH	109	25303	2746205	95.8	0.0	4.2	2189160	87
LOS ANGELES	134	135529	18182754	97.3	0.0	2.7	11562015	85
LOS RIOS	104	46482	4853489	95.5	0.0	4.5	4040406	87
MARIN	114	10569	1203117	62.2	34.7	3.2	1406192	133
MENDOCINO	111	3564	397034	46.7	52.1	1.2	633062	178
MERCED	152	8368	1272849	90.0	1.8	8.2	769309	92
MIRA COSTA	129	8515	1100458	71.9	26.3	1.6	979496	115
MONTEREY PEN.	119	8405	1003471	83.5	14.1	2.4	835457	99
MT SAN ANTONIO	79	28453	2234847	98.5	0.0	1.5	2392654	84
MT SAN JACINTO	154	3678	567891	48.9	48.4	2.7	624198	170
NAPA VALLEY	60	8973	541154	74.5	22.2	3.2	994413	111
NORTH ORANGE	55	66611	3683193	98.9	0.0	1.1	5560959	83
PALOMAR	91	18881	1725030	97.8	0.0	2.2	1599693	85
PALO VERDE	127	763	96603	41.0	55.8	3.1	154242	202
PASADENA	90	22588	2035721	95.6	0.0	4.4	1956462	87
PERALTA	104	38993	4067299	65.7	30.7	3.6	4927721	126
RANCHO SANTIAGO	71	32808	2324319	97.8	0.0	2.2	2771829	84
REDWOODS	74	8026	597133	78.0	17.6	4.4	853358	106
RIO HONDO	79	11850	934007	95.9	0.0	4.1	1023773	86
RIVERSIDE	81	15696	1272257	96.7	0.0	3.3	1346767	86
SADDLEBACK	63	24560	1558866	97.8	0.0	2.2	2082852	85
SAN BERNARDINO	83	19720	1642668	88.6	7.5	3.9	1847404	94
SAN DIEGO	85	62239	5311214	96.7	0.0	3.3	5298173	85
SAN FRANCISCO	52	70104	3613689	97.4	0.0	2.6	5907332	84
SANJOAQUIN DELTA	83	17173	1426353	96.3	0.0	3.7	1478878	86
SAN JOSE	86	21787	1879993	94.3	1.7	4.0	1917164	88
SAN LUIS OBISPO	96	5893	568242	61.7	32.7	5.7	793057	135
SAN MATEO	97	30518	2972276	89.9	7.7	2.4	2816492	92
SANTA BARBARA	56	18752	1051058	96.7	0.0	3.3	1602360	85
SANTA CLARITA	112	3487	390233	50.3	49.1	.6	575428	165
SANTA MONICA	69	23001	1596969	98.1	0.0	1.9	1942599	84
SEQUOIAS	142	7326	1042600	79.1	16.9	4.0	768701	105
SHASTA	100	8948	890473	82.3	10.4	7.3	900883	101
SIERRA	81	10006	807509	93.9	3.7	2.4	884047	88
SISKIYOUS	76	2862	216450	48.0	49.7	2.3	493878	173
SOLANO	85	9799	832525	87.2	10.7	2.1	932694	95
SONOMA	71	22313	1585284	94.3	0.0	5.7	1956573	88
SOUTH COUNTY	96	21728	2084761	97.3	0.0	2.7	1853017	85
SOUTHWESTERN	92	12333	1139218	94.8	0.0	5.2	1079210	88
STATE CENTER	110	18179	1999707	93.0	0.0	7.0	1621730	89
VENTURA	104	30729	3195423	94.9	3.1	2.1	2685987	87
VICTOR VALLEY	139	5012	694727	52.9	45.4	1.7	786240	157
WEST HILLS	221	2152	476618	45.4	51.3	3.2	393000	183
WEST KERN	291	959	279056	41.2	53.1	5.7	193127	201
WEST VALLEY	65	27617	1800353	98.4	0.0	1.6	2329151	84
YOSEMITE	126	15018	1895657	76.6	21.3	2.2	1626467	108
YUBA	143	8430	1201896	91.6	3.5	5.0	763972	91
		1348518	124966154				125064508	

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TABLE 23
MAINTENANCE EXPENDITURES PER ASF
FISCAL YEAR 1982-83

DISTRICT NAME	MAINT EXP PER ASF	1982-83 ADA	82-83 ASF	MAINT DOLLARS	BASE PER	NEED PER	TOTAL AMT	AMT PER ASF
ALLAN HANCOCK	5.77	6662	235.1	1356866	94.4	5.6	1312328	5.58
ANTELOPE VALLEY	4.89	3667	169.2	924789	100.0	0.0	997084	5.27
BARSTOW	4.39	959	83.9	368538	100.0	0.0	442153	5.27
BUTTE	6.73	6035	218.5	1471082	100.0	0.0	1151495	5.27
CABRILLO	4.88	6505	257.9	1258741	85.0	15.0	1599908	6.20
CERRITOS	5.44	13027	523.8	2851610	98.8	1.2	2793111	5.33
CHAFFEY	2.10	7558	371.8	781474	99.5	.5	1968389	5.29
CITRUS	4.15	5776	352.8	1465004	100.0	0.0	1859256	5.27
COACHELLA VALLEY	6.92	3685	216.9	1501824	97.7	2.3	1170132	5.39
COAST	5.06	31738	1097.2	5556455	98.9	1.1	5845483	5.33
COMPTON	4.02	3031	232.0	933038	100.0	.0	1223197	5.27
CONTRA COSTA	6.01	19055	838.4	5038356	100.0	0.0	4410366	5.27
EL CAMINO	4.58	14226	811.4	3720000	100.0	0.0	4276078	5.27
FOOTHILL-DEANZA	5.49	21944	813.9	4471953	96.9	3.1	4425988	5.44
FREMONT NEWARK	5.13	4594	213.9	1098368	100.0	0.0	1127253	5.27
GAVILAN	3.69	2272	169.8	625720	100.0	0.0	894846	5.27
GLENDALE	4.91	7308	225.3	1106141	100.0	0.0	1187331	5.27
GROSSMONT	6.40	10365	397.9	2546485	100.0	0.0	2096933	5.27
HARTNELL	4.18	4408	299.2	1250061	96.7	3.3	1629922	5.45
IMPERIAL	4.93	2936	147.5	726064	93.1	6.9	834673	5.66
KERN	4.62	10015	655.6	3025885	97.4	2.6	3546272	5.41
LAKE TAHOE	4.86	528	28.6	139127	77.4	22.6	194789	6.81
LASSEN	7.03	2846	100.0	702767	98.6	1.4	534440	5.34
LONG BEACH	5.51	14940	616.6	3399428	91.9	8.1	3535091	5.73
LOS ANGELES	6.08	70614	3341.0	20301133	97.8	2.2	17999972	5.39
LOS RIOS	6.07	26933	1090.9	6625398	99.0	1.0	5809261	5.33
MARIN	4.53	7258	410.9	1860559	95.9	4.1	2257156	5.49
MENDOCINO	3.76	1367	77.9	292763	94.0	6.0	436520	5.60
MERCED	4.59	5649	281.3	1290610	100.0	0.0	1482451	5.27
MIRA COSTA	7.41	4431	185.4	1373181	100.0	0.0	977058	5.27
MONTEREY PEN.	4.62	5034	259.1	1195846	93.9	6.1	1454380	5.61
MT SAN ANTONIO	6.41	14239	662.6	4246209	91.7	8.3	3806770	5.75
MT SAN JACINTO	4.03	1673	134.7	543200	100.0	0.0	709869	5.27
NAPA VALLEY	4.65	4682	214.1	995025	97.8	2.2	1153999	5.39
NORTH ORANGE	6.52	25794	1001.2	6526834	98.0	2.0	5384454	5.38
PALOMAR	5.27	10636	406.8	2143528	100.0	0.0	2143836	5.27
PALO VERDE	3.98	338	19.3	76778	100.0	0.0	101711	5.27
PASADENA	6.93	13826	566.7	3927898	92.2	7.8	3238124	5.71
PERALTA	4.01	19697	1006.3	4030324	99.5	.5	5327352	5.29
RANCHO SANTIAGO	7.42	14882	361.3	2681906	96.0	4.0	1982959	5.49
REDWOODS	2.95	4957	289.7	855897	92.2	7.8	1655346	5.71
RIO HONDO	4.51	7292	349.2	1575740	100.0	0.0	1840284	5.27
RIVERSIDE	6.32	8552	335.6	2120428	97.6	2.4	1811300	5.40
SADDLEBACK	8.77	13321	382.2	3350195	100.0	0.0	2014194	5.27
SAN BERNARDINO	5.00	10953	548.0	2741019	99.5	.5	2901112	5.29
SAN DIEGO	5.94	34244	980.9	5829381	97.8	2.2	5287051	5.39
SAN FRANCISCO	8.97	31909	786.8	7059300	85.0	15.0	4875328	6.20
SANJOAQUIN DELTA	5.95	10202	510.3	3038327	100.0	0.0	2689281	5.27
SAN JOSE	4.66	10475	495.5	2306802	81.5	18.5	3204696	6.47
SAN LUIS OBISPO	7.13	3739	191.1	1363013	100.0	0.0	1007097	5.27
SAN MATEO	4.46	16202	738.5	3294017	100.0	0.0	3891895	5.27
SANTA BARBARA	5.25	8609	327.9	1721560	88.3	11.7	1957038	5.97
SANTA CLARITA	6.69	1908	172.4	1153140	100.0	0.0	908548	5.27
SANTA MONICA	6.74	10659	395.0	2661615	87.6	12.4	2377426	6.02
SEQUOIAS	4.93	4926	232.5	1147279	81.2	18.8	1508739	6.49
SHASTA	5.57	5430	298.8	1663637	100.0	0.0	1574676	5.27
SIERRA	2.71	5000	267.2	724383	98.9	1.1	1424176	5.33
SISKIYOUS	3.43	1518	132.0	452450	100.0	0.0	695640	5.27
SOLANO	3.99	5157	268.9	1074059	100.0	0.0	1417103	5.27
SONOMA	4.26	12410	472.9	1987896	90.0	10.0	2767978	5.85
SOUTH COUNTY	5.10	10042	436.3	2226444	100.0	0.0	2299301	5.27
SOUTHWESTERN	5.81	7729	329.1	1912050	100.0	0.0	1734357	5.27
STATE CENTER	3.74	11803	722.3	2698991	97.0	3.0	3926134	5.44
VENTURA	5.84	17087	659.4	3850485	99.7	.3	3486116	5.29
VICTOR VALLEY	5.77	2390	145.4	839654	99.8	.2	767654	5.28
WEST HILLS	6.13	1209	126.4	774310	100.0	0.0	666128	5.27
WEST KERN	6.12	505	90.1	551194	99.2	.8	478503	5.31
WEST VALLEY	5.60	12560	518.4	2860135	96.8	3.2	2779230	5.45
YOSEMITE	3.64	9544	516.6	1878955	97.9	2.1	2779515	5.38
YUBA	4.71	5728	273.8	1290925	100.0	0.0	1442926	5.27
		717300	31101.9	169435548			169499043	

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TABLE 24
GENERAL SUPPORT EXPENDITURES PER FTE FACULTY
FISCAL YEAR 1982-83

DISTRICT NAME	GENERAL EXP PER FTE FAC	FACULTY FTE	1982-83 ADA	GEN INST DOLLARS	OPTION ONE	OPTION TWO	OPT 1/ % OF BUD	OPT 2/ FTE FAC
ALLAN HANCOCK	6718	196	6662	1314683	1407943	1546671	11.7	7903
ANTELOPE VALLEY	4143	123	3667	508806	1169844	1072547	13.8	8734
BARSTOW	12737	38	959	482717	622696	357150	20.7	9423
BUTTE	6591	183	6035	1206888	1216095	1983767	11.2	8104
CABRILLO	5827	259	6505	1509267	1618221	2054008	12.9	7931
CERRITOS	7030	350	13027	2462754	2934902	2105287	12.2	6010
CHAFFEY	8714	287	7558	2496566	1878807	2206826	12.2	7703
CITRUS	6757	179	5776	1206150	1340015	1452274	12.1	8136
COACHELLA VALLEY	6311	175	3685	1101337	1449120	1518177	16.0	8700
COAST	7310	933	31738	6819236	7290787	6454524	11.8	6919
COMPTON	15272	91	3031	1383669	1181833	804565	15.6	8880
CONTRA COSTA	6542	581	19055	3801837	4889474	4657942	12.9	8016
EL CAMINO	6229	443	14226	2760000	3730502	2571746	13.2	5804
FOOTHILL-DEANZA	5932	674	21944	3997655	5186824	4517290	12.6	6703
FREMONT NEWARK	7433	182	4594	1354213	1344629	1541409	14.1	8460
GAVILAN	6046	91	2272	551982	970177	830267	16.4	9094
GLENDALE	4153	282	7308	1172509	1574374	2096875	11.8	7428
GROSSMONT	8154	334	10365	2721042	2771180	2769682	13.5	8300
HARTNELL	7201	143	4408	1026836	1536197	1213434	15.0	8509
IMPERIAL	4832	112	2936	539750	1010292	995130	14.4	8909
KERN	6562	413	10015	2708887	3910307	3632326	15.7	8799
LAKE TAHOE	16717	32	528	523266	336601	301674	19.4	9547
LASSEN	8606	70	2046	598100	709387	634023	14.4	9123
LONG BEACH	5536	559	14940	3092813	3317331	3149162	12.0	5637
LOS ANGELES	6893	2647	70614	23537546	18022449	20159143	11.3	7617
LOS RIOS	7153	901	26933	6445639	6039981	6545228	12.1	7264
MARIN	7403	276	7258	2044642	2472238	2412606	14.9	8735
MENDOCINO	12658	64	1367	810110	678145	597278	17.0	9332
MERCED	7617	154	5649	1172205	1326715	1256284	12.2	8163
MIRA COSTA	8327	152	4431	1263135	1423275	1294068	13.6	8530
MONTEREY PEN	4721	162	5034	764302	1323665	1347357	12.9	8322
MT SAN ANTONIO	7204	398	14239	2863397	3566254	2377816	12.8	5982
MT SAN JACINTO	9844	55	1673	541436	810661	505917	16.7	9198
NAPA VALLEY	5737	189	4682	1086671	1332720	1602078	13.4	8459
NORTH ORANGE	8491	766	25794	6499752	6157123	5598800	12.4	7314
PALOMAR	3845	329	10636	1265703	2420553	2252829	12.3	6843
PALO VERDE	10679	21	338	228532	308283	205306	20.3	9594
PASADENA	7988	423	13825	3379819	3266847	2492766	12.0	5892
PERALTA	9464	727	19697	6877433	5810148	6279573	13.2	8641
RANCHO SANTIAGO	6256	553	14882	3462097	3325203	4205260	11.6	7599
REDWOODS	10836	164	4957	1781460	1574119	1378097	14.6	8383
RIO HONDO	7294	244	7292	1779061	1778255	1851221	12.6	7590
RIVERSIDE	6965	260	8552	1552153	1896295	1933991	11.9	7433
SADDLEBACK	11809	427	13321	5045805	3400897	3394705	11.6	7945
SAN BERNARDINO	6841	352	10953	2478581	2562614	2982604	11.9	8232
SAN DIEGO	9697	1232	34244	12436013	6924083	9518848	11.4	7423
SAN FRANCISCO	6109	1206	31909	7367444	6508123	6312343	11.3	5235
SANJOAQUIN DELTA	7412	283	10302	2100451	2553193	1964618	12.8	6932
SAN JOSE	8151	408	10475	3323015	2872592	3327369	12.8	8161
SAN LUIS OBISPO	8278	114	3739	944511	1172652	993480	13.9	8707
SAN MATEO	4672	597	16202	2788424	4299089	4914697	12.7	8234
SANTA BARBARA	7520	266	8609	2002446	2064170	1968786	12.0	7393
SANTA CLARITA	10021	63	1908	626325	840742	573957	15.6	9183
SANTA MONICA	7507	340	10659	2550715	2416530	2282118	11.8	6716
SEQUOIAS	5795	180	4926	1042600	1390391	1505807	13.4	8370
SHASTA	5444	168	5430	911801	1446922	1386295	13.1	8276
SIERRA	14220	174	5800	2470028	1422168	1421618	12.7	8184
SISKIYOUS	6161	60	1518	308615	752441	552791	17.0	9244
SOLANO	7674	181	5157	1387541	1380579	1495859	13.3	8274
SONOMA	5416	386	12418	2088549	2756716	2415303	11.7	6264
SOUTH COUNTY	5066	356	10042	1801396	2526922	2392163	12.5	6727
SOUTHWESTERN	6895	231	7729	1593375	1717601	1767676	12.1	7649
STATE CENTER	9964	367	11803	3655905	2995151	2979245	12.6	8120
VENTURA	5861	589	17087	3451057	3983952	4814442	12.4	8177
VICTOR VALLEY	4711	96	2390	453183	1042512	871389	16.4	9058
WEST HILLS	8174	62	1209	503504	775071	575798	17.7	9347
WEST KERN	11158	35	505	386066	456107	329300	16.8	9517
WEST VALLEY	7544	425	12560	3204883	3158962	3375281	13.0	7946
YOSEMITE	11328	262	9544	2964574	2775755	2208292	13.5	8438
YUBA	9090	170	5728	1545295	1486437	1391030	12.0	8183
		24299	717300	182133208	182520836	181978189		

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TABLE 25
MAJOR DISCIPLINE INFORMATION BY COST CATEGORY

Major Discip.	1982-83 Expend. Per ADA	1982-83 Equip. Expend.	Other Oper. Expend	Percent Fulltime Faculty	Student Faculty Ratio
High Cost Category					
0100 Agriculture	1,859	211	184	55.2	29.7
0600 Communication	1,751	83	264	51.9	30.2
1200 Health	1,702	38	171	71.8	16.9
0200 Architecture	1,624	40	25	84.8	36.2
1500 Humanities	1,396	10	40	66.8	20.8
1900 Physical Sc.	1,389	50	79	53.6	19.4
0400 Biological S.	1,322	61	66	70.1	31.3
Middle Cost Category					
0900 Engineering	1,248	120	98	59.9	28.8
1000 Fine Arts	1,222	50	79	56.6	24.2
1300 Consumer Ed.	1,178	44	80	48.1	21.5
2100 Public Aff.	1,107	45	177	55.0	24.7
4900 Interdisc.	1,103	37	135	51.1	25.0
1100 Foreign L.	1,077	3	30	58.2	26.8
0800 Education	1,071	43	126	64.6	27.9
2200 Social Sci.	1,063	36	139	74.8	32.5
Low Cost Category					
2000 Psychology	999	3	21	80.9	31.5
0500 Business	992	34	49	54.5	43.6
1700 Mathematics	801	5	23	73.7	35.2
1400 Law	750	7	75	57.1	18.1
3000 Commercial S	701	36	139	69.2	42.4
0700 Computer Sci.	645	91	80	46.6	42.2

CURRENT DIRECTORY C:\dos

CHAPTER 6.

SUGGESTED PLAN FOR IMPLEMENTATION

CHAPTER 6. SUGGESTED PLAN FOR IMPLEMENTATION

A. Elements of the Plan

Elements of a plan for differential funding result from the analysis described in Chapter Five and in response to the first four study research questions. The basic elements are: revenues to be included, support categories, workload measures, and support levels. Emerging from consideration of those elements was the need to consider determination and distribution of statewide apportionments and the need to convene task forces to develop more refined indices of need for each support category. As described at considerable length previously, it became clear that an essential element of the plan would have to be a procedure for obtaining adequate data on a regular basis.

Revenues to be Included

A list of revenue sources for operations of the California Community Colleges would include revenues from:

ADA (including property tax, enrollment fees, and general State fund apportionment)
Apprenticeship Instruction
EOPS
HSPS
Matriculation (if it is funded)
VEA
JTPA
Special Fees

Revenues from special fees, JTPA and VEA are for special purposes and should not be included in a system of differential funding.

Revenues from matriculation, at least on a pilot basis, were anticipated but the measure was vetoed pending completion of the study of the mission of the community colleges and review of the Master Plan for Higher Education. Funding for matriculation would have been categorical (with expenditures limited to matriculation) during the pilot and phase-in periods. Such revenues, if the program is funded, should not be assimilated into differential funding until the program of matriculation is fully implemented.

Revenues for EOPS and HSPS are categorical and must be expended in those programs. This was required during development and implementation of the programs and still should be required until such time as workload measures and support levels for Student Services adequately recognize and provide for the needs of EOPS and handicapped students in each of the colleges. Therefore, revenues for these programs should not be included initially in differential funding.

Remaining revenues, those for ADA and Apprenticeship Instruction, should be included in differential funding.

Support Categories

The advisory committee reviewed various support categories used in other states and other systems. (See Appendix C.) It was agreed that initial analysis would use categories from the Budget and Accounting Manual of the California Community Colleges. These are identified in Table Nine. Including Apprenticeship, twenty-four instructional categories are listed. Instructional Support and Instructional Activities were to be considered separately or combined. That was true, also, for Planning and Policy Making and General Institutional Services. Student Services were to include, for analysis, Activities 6200 (Admissions and Records), 6300 (Counseling and Guidance) and 6400 (Other Student Services). Maintenance and Operations was to be considered separately as was Community Services. It was understood that the most difficult differentiation would be related to instructional categories.

Considerable effort was expended in attempts to differentiate within instructional activities. Efforts to determine costs (expenditures) at the subdiscipline level (four-digit TOP code) were not successful because complete and comparable data are not available. Further efforts were made to analyze differences at the major discipline level (two-digit TOP code). As described in Chapter Five, Option 1 would aggregate instructional workload into three broad cost categories, representing major discipline areas on a statewide average cost basis.

As a second option, there are three existing differential rates of support for instructional activities in the California Community Colleges: credit programs, noncredit programs, and apprenticeship programs. Option 2 would continue these existing instructional support rates until such time as adequate data become available to more effectively determine instructional program cost differences.

Advantages and disadvantages of each option are described in Chapter Five.

TABLE 9
CROSSOVER TABLE FOR TOP (Formerly CID) AND ADMINISTRATIVE AND SUPPORT ACTIVITY, ABBREVIATION, NUMBER AND TITLE

Abbreviation	Activity Code Number	Title
Instructional		
AgNR	0100	Agriculture and Natural Resources
ArED	0200	Architecture and Environmental Design
BioS	0400	Biological Sciences
BsMg	0500	Business and Management
Comm	0600	Communications
CInfo	0700	Computer and Information Sciences
Educ	0800	Education
EnRF	0900	Engineering and Related Fields
FAAr	1000	Fine and Applied Arts
ForL	1100	Foreign Language
HeOc	1200	Health Occupations
CEHE	1300	Consumer Education and Home Economics
Law	1400	Law
HuLt	1500	Humanities (letters)
LiSc	1600	Library Science
Math	1700	Mathematics
MilS	1800	Military Studies
PhyS	1900	Physical Sciences
Psyc	2000	Psychology
PA&S	2100	Public Affairs and Services
SocS	2200	Social Sciences
ComS	3000	Commercial Services
IntS	4900	Interdisciplinary Studies
Appr	5300	Apprenticeship
RI *	25.5	Retirement Incentives
Administrative and Support		
InSu	6000	Instructional Support
InSv	6100	Instructional Services
Ad&R	6200	Admissions and Records
Co&G	6300	Counseling and Guidance
OStS	6400	Other Student Services
M&OP	6500	Maintenance and Operation of Plant
PlPm	6600	Planning and Policymaking
GISv	6700	General Institutional Services
Others		
CmSv	6800	Community Services
AncS	6900	Ancillary Services
AuxO	7000	Auxiliary Operations
CapO	7100	Capital Outlay
DbtS	7200	Debt Service
Trfr	7300	Transfers

* Retirement Incentive - This activity is used to report one time amounts expended for retirement incentive pay of all employees whose regular salaries are charged to Instructional Activities (0100-5300) For all other employees, expenditures for retirement incentive pay are reported under General Institutional Services (A.C. 6700).

Depending upon the options selected, funds would be apportioned through four main support categories and three or four sub-categories, as follows:

Instruction and Instructional Services

Option 1	Option 2
High cost	Credit Programs
Medium cost	Noncredit Programs
Low cost	Apprenticeship Instruction
Apprenticeship Instruction	

Student Services

General Services

Maintenance and Operations

With either option for instructional activities, this procedure aggregates existing account categories to minimize transition costs and the cost of collection and verification of data. Categories are similar to those used in other systems of higher education. This sets in place the basic framework for differential funding and permits transition to further differentiation based upon more comprehensive information. The various categories would include elements listed below:

A. Instruction and Instructional Services

Instructional Activities (controlling activity codes 0100-5300)
Instructional Support (controlling activity code 6000)
    Academic Administration, Course and Curriculum Development
Instructional Services (controlling activity code 6100)
    Learning Center, Library, Media, Museum, Galleries

(Consideration should be given, later, to identifying Controlling Account Category 6100 (Instructional Support Services) as a separate category or combining it with Student Services, listed below.)

B. Student Services

Admissions and Records (controlling activity code 6200)
Counseling and Guidance (controlling activity code 6300)
Other Student Services (controlling activity code 6400)
    Student Personnel Administration, Financial Aid Administration, Health Services, Housing Services, Student Transportation, Handicapped Services, Job Placement Services, Other Services

C. General Services

Planning and Policy Making (controlling activity code 6600)
General Institutional Support Services (controlling activity code 6700)
    Fiscal Operations, General Administrative Services, Logistical Services, Staff Services, Community Relations, Retired Noninstructional Staff Benefits

D. Maintenance and Operations

Operations and Maintenance of Plant (controlling activity code 6500)
    Custodial, Grounds Maintenance, Building Maintenance, Utilities, Other

This recognizes Student Services as a separate support category and aggregates existing student service account categories to minimize costs of transition. It integrates student services as directed by the Legislature. It may be modified to include matriculation if it is implemented, either as a categorical program during phase-in or as an integrated component later. It does not include EOPS or HSPS funding since both are categorical, but it may be modified to include both as components later. It recognizes general services as a separate category and aggregates two account categories in that area. It recognizes Maintenance and Operations as a separate category.

Workload Measures

Given the unique nature of community college responsibility for a wide variety of instructional programs (including transfer, vocational, remedial and adult education) the contact hour continues to be the most appropriate measure of instructional workload. Possible implementation of differential funding should be accompanied by a change from the K-12 measurement of average daily attendance (ADA) to a measure that better relates to the costs of instructional offerings. Although appropriate nomenclature for the measure is still being considered, the terminology of Full Time Student Equivalent (FTSE) is used in this draft of the report as the workload measure for Instructional Services. The measure should reflect the level of enrollment of full-time student equivalents, based on student contact hours. The measure should continue to use positive attendance for open entry-open exit and noncredit courses. The measure for census classes should be based on the determination of active enrollment from a single census rather than from two existing census procedures and should eliminate the existing attendance factor which theoretically converts enrollment to attendance.

Full conversion to a measure based upon units of credit may be considered at a later time when it can be assured that data are complete and accurate enough to recognize cost differences among various modes of delivery of instruction and various program and subject areas.

It is recommended that the basic (core) workload measure for student services be Headcount Enrollment and that, pending evidence of a more appropriate time, the measure of Headcount Enrollment be taken at the first census.

This provides a further break from ADA. It recognizes that student services are provided for all students without regard to the number of units attempted. It provides a workload measure for student services which is different from other measures and is more uniquely appropriate for this category of service.

It is recommended that the basic (core) workload measure for General Services be a Percentage of the Allocation in Other Categories or Full-Time Faculty Equivalent.

This provides a further break from ADA. It recognizes that the level of General Services is related to all other services of the institution and is more stable than is student enrollment. It provides a workload measure for General Services that is different from, yet is related to, other services and is more uniquely appropriate for this category of service.

The recommended basic (core) workload measure for Maintenance and Operations is Assignable Square Feet.

This provides a further break from ADA. It recognizes that plant maintenance and operations requirements are more stable than are enrollments. It provides a workload measure that is different from other measures and is more uniquely appropriate for this category of service.

Support Levels

Basic workload measures suggested are, undoubtedly, better measures of workload than is the single measure of average daily attendance. However, even four separate measures, unless they are adjusted by appropriate factors, cannot recognize the range of needs and characteristics of the diverse California Community Colleges. Developing this element of the plan required that appropriate variables be identified and that formulas be developed to incorporate the variables and, in turn, to accommodate the diverse needs and characteristics of the 106 colleges in the 70 community college districts. Formulas to adjust for variables should be simple enough to be readily understood but they should be sophisticated enough to recognize appropriate cost differences among the districts. A number of variable factors were tested for each support category. In general, those factors fall into four categories which describe differences in district history, size, clientele, and resources. While factors have been identified which help to account for differences among colleges and districts, there is a need to identify other factors and to refine factors into an appropriate need index to be applied to each basic workload measure.

For that purpose, it is recommended that four task forces be convened to consider factors and develop a need index for each of the major support categories:

Instruction and Instructional Services
Student Services
General Services
Maintenance and Operations

The functions of the task forces would be to identify factors (variables) which influence costs in each support category; to identify sources of information related to each factor; and to recommend procedures for obtaining information needed in testing the impact of the factors on costs within the colleges.

Determination and Distribution of State Apportionment

Currently, the statewide apportionment for community colleges is determined annually through a base year procedure with revenues added for increased ADA or subtracted for decline in ADA at an incremental rate of about two-thirds. Equalization funding is added, if applicable. Inflation funding is added. Projected property tax and general student fee receipts are subtracted from the State apportionment share. A small district factor is included to adjust small district average revenues. Priorities are set among revenues adjustments in the event that general fund appropriations and other revenues are less than the amount computed for all districts according to the established formulas.

Under the present system, the State's interests are protected to the degree that the total apportionment is controlled by enrollment limits in each district. Local district interests are protected to the degree that their enrollments can be maintained at or near their enrollment limits. (There is considerable doubt that enrollment levels will reach those limits on a statewide basis in the near future.) The present system does not address adequately the tensions which exist between state and local interests. It does not provide a proper balance between state interest in accountability and equity and local district interest in autonomy and diversity. While a certain degree of tension between state and local interests is inevitable, and even desirable, an imbalance is not desirable. That is particularly true if the imbalance and the tensions result from lack of agreement on basic issues. Basic to achieving a proper balance between state and local interests is agreement on mission, level and quality of service, cost of desired level of service, and kind and level of accountability. It is recommended that, ultimately, decisions about the total statewide apportionment for the California Community Colleges be built upon a base of agreement on 1) the mission of the colleges, 2) the level and quality of services to be rendered, 3) the cost of delivering the desired quality of service, and 4) the kind and level of accountability to be required.

It may be presumed that building a base of agreement is an objective of recently-enacted legislation to review the community college mission and Master Plan for Higher Education (ACR 162, SB 1570, SB 2064). It has been the intention, in developing this proposed plan for a system of differential cost funding, that it be adaptable to current practice as well as to future practice based upon such agreements as those described above.

The need for stability and predictability in community college funding is a very serious one. That need might be better served with a three-year budget cycle in which major adjustments are made every three years based upon unit cost analysis and minor adjustments are made annually within the longer cycle. However, until such time as there is agreement as described above and there is a history of reliable, comparable cost information, an annual budget process with consideration of the total apportionment each year is recommended.

Currently, funds are apportioned to individual districts on the basis of a single workload measure (ADA) and in accordance with formulas for equalization, district and college size, inflation, and cost of living adjustments, all of which are included in statutes. In a system designed to be responsive to the cost of delivering instruction and services, formulas for allocation of funds will need to be adaptable to changes in cost as they are identified.

Under existing conditions, the Board of Governors must seek and obtain legislation for any needed adjustments or to correct any inadvertent inequities in allocation procedures. Thus, all adjustments must be determined in the legislative arena. The great diversity of district variables must be accommodated by legislation. When changes occur in need or in variable factors, response must wait for new legislation. Flexibility to respond to change is denied the community colleges and the Legislature must become involved in the details of each allocation formula. Basic support categories, workload measures, support levels and procedures for inflationary adjustment should be established by the Legislature. Total available funding and changes in rates for inflation and cost-of-living adjustments should be determined in the State budget process. However, responsibility for the detailed formulas with which legislative intent is carried out should be delegated to the Board of Governors and the Chancellor in order that the system can be flexible enough to accommodate both variables and changes and in order to remove the details of these decisions from the legislative arena. It is recommended, therefore, that responsibility for adjustments of allocations to individual districts within broad prescribed parameters be delegated to the Board of Governors and the Chancellor.

Obtaining Adequate Data

The need for data is described at length in Chapter Four. Implementation of Phase II of the Chancellor's Office Information System Project could incorporate and meet the data needs for differential funding. It is anticipated that adequate data will be available if, and when, Phase II of the system is implemented.

However, if Phase II of the Information System is not funded or if it is not fully developed in time to match the phasing suggested for differential funding, an alternative is possible based on sampling. The following procedures could be followed. Collect and analyze cost information in each of the four main support categories on a four-year cycle in a representative sample of the colleges. Collect and analyze cost information for Instructional Services in year one of the cycle, Student Services in year two, General Services in year three, and Maintenance and Operations in year four. Repeat the cycle every four years. Identify the basic data elements required for each cost analysis for each support category. Contract with a selected sample of districts to collect and provide the data. Use the information to adjust the formula for the related support category as appropriate. Allocate $150,000 each year for the annual unit cost study, of which $100,000 would be paid to the participating colleges.

This would provide for detailed cost analysis for each of the categories every fourth year without the greater expense and effort required for all 106 colleges to collect unit cost information in all service areas every year. It would direct funds to the colleges where it is needed if they are to provide the data. If would give at least a small incentive to the colleges to participate.

While some may consider four years too long between cost studies, the cycle could be accelerated if necessary or desirable. Also, the time lag will be reduced or eliminated when all the colleges are capable of providing needed data on an annual basis.

It is recommended that data provided by the districts to the Chancellor's Office be improved by developing a comprehensive and integrated information system or by conducting cost studies on a sampling basis.

B. Suggested Schedule

The California Community Colleges need a finance system which is stable and predictable over a period of time. Any transition to differential funding should be planned carefully and understood widely. It should occur over a sufficient period of time to permit rational planning. All concerned should know the rules for the foreseeable future. It is recommended that implementation of the plan be phased-in according to the following schedule:

PHASE I - PLANNING AND PRELIMINARY ACTIVITIES (January 1, 1985 - June 30, 1985)

1. Adopt policy revisions and enabling legislation.
2. Convene task forces to develop needs indices for each support category.
3. Specify and collect information required for Phase II.
4. Specify information to be required for Phase III.

5. Conduct unit cost study of Instruction and Instructional Services (to be repeated once every four years).

PHASE II - TRANSITION (July 1, 1985 - June 30, 1987)

A. July 1, 1985 - June 30, 1986

  1. Allocate funds for operations on the basis of SB 851.
  2. Fund data improvement elements.
  3. Collect information required for Phase III, including that required for further differentiation of Instructional Services.
  4. Conduct unit cost analysis study of Student Services (to be repeated once every four years).
  5. Develop formulas and determine procedures for distribution of State apportionment to individual districts.

B. July 1, 1986 - June 30, 1987

  1. Allocate funds for operations on the basis of differential costs for four major support categories: Instruction and Instructional Services, Student Services, Institutional Support, and Maintenance and Operations.
  2. Retain categorical funding for EOPS and Handicapped.
  3. Collect information required for Phase 3.
  4. Conduct unit cost analysis of General Services (to be repeated once every four years).

PHASE III - OPERATIONAL (from July 1, 1987)

1. Allocate funds for operations on the basis of differential funding for Instructional Support subcategories identified in Phase II and Student Services, Institutional Support, and Maintenance and Operations. Include funding for EOPS and HSPS and Matriculation in Student Services as an element of differential funding rather than as categorical funding.
2. Distribute funds in accordance with procedures adopted by the Board of Governors and Chancellor.
3. Conduct unit cost analysis of Maintenance and Operations (to be repeated once every four years). Repeat the cycle of unit cost studies after this year, and adjust allocation formulas as appropriate after each cost analysis.

C. Estimated Costs

The costs of moving from the current system of finance to a system of differential cost funding may be considered in two areas. First, are costs related to provision of adequate information for the system. Second, are costs during the transition period related to changes in funding the districts. Estimates are not provided of costs required to meet unmet needs, to improve programs and services, or to increase quality of services.

Costs Related to Data Needs

Alternative 1 (Implementation of Phase II of Information Systems Project)

Current estimates of the additional cost for design and implementation of Phase II indicate the need for an additional appropriation of $_______ to cover costs for personnel and an additional amount of $_______ for increased operating costs.

Alternative 2 (Upgrading of district capability to report fiscal data at four-digit TOP Code level)

Eighteen of the twenty-nine districts visited during the field visits submitted estimates of their costs to provide information at two levels of greater detail than is required currently.

First, the districts were asked to estimate the additional costs associated with reporting cost information at the four-digit TOP code level. This would permit comparison of costs (expenditures) associated with subdisciplines within the instructional area. For example, it would be possible to compare expenditures from district to district in Ornamental Horticulture, a subdiscipline within Agriculture. Currently, it is possible only to compare costs at the more aggregated level of Agriculture, which includes seven subdisciplines.

Only three of the reporting districts indicated the need for additional hardware but most needed added storage capacity to report cost information at the four-digit TOP code legel. The greatest need is for software development and modification and one-time contract costs. Estimates of "start-up" costs in these areas totalled $488,731 for the eighteen districts. Projected statewide, "start-up" costs would total about $1.9 million. Estimated "on-going" costs for maintenance, processing time and additional staff totalled $592,537 for the eighteen districts. Projected statewide, "on-going" costs would be in excess of $2.4 million.

Assuming a sampling error of twenty percent in these estimates would indicate that start-up costs for this capability would be from about $1.5 million to about $2.5 million. Annual additional operating costs would be somewhere between $ 2 million and $3 million.

Next, the districts were asked to estimate the additional costs associated with reporting ADA information at the two-digit TOP code level along with the financial data. This would permit accurate integration of financial and attendance or enrollment data. "Start-up" costs would be minimal in this case. "On-going" annual staff costs were estimated to be $126,053 and annual data processing costs were estimated to be $297,400. Projected statewide, annual additional costs would be in excess of $1.6 million. Assuming a sampling error, again, would suggest costs between $1.3 and $1.9 million.

These estimates indicate the great variance among districts in data processing capabilities and procedures. They indicate, also, that providing more detailed cost information, if not related to other data needs and if not developed in coordination with other data, would add significantly to district costs. Clearly, it would be more cost effective to upgrade data procedures for finance in coordination with further development of the comprehensive information system.

Alternative 3 (Annual cost studies)

This alternative assumes that there would be an annual cost study in each year of a four-year cycle. Annual cost is estimated to be $150,000.

Costs Related to Changes in Funding

The study and analysis were guided by the principle that the study and the plan should neither generate funds nor save funds. A further principle stated that no district should suffer large losses in the transition. Those principles are not contradictory, as they may seem. Fiscal and political reality suggest that both principles must be followed, even though either is extremely difficult to maintain in moving from the existing situation in the California Community Colleges to what is contemplated in a differential cost funding system.

The study was conducted with "fiscal neutrality." It was of a situation which existed in the 1982-83 college year. In following the principle of fiscal neutrality, there was no analysis of the need for funds to meet unmet needs or for improvement of program or support levels. There was no analysis of need resulting from a 25 percent loss in purchasing power between 1979 and 1984. There was no analysis of the need resulting from the situation, unique to 1982-83, in which $30 million was removed from the funding base as a result of eliminating recreational/avocational courses and classes. There was no analysis of the need for increased support in maintenance and operations, although the seriousness of deferral of maintenance has been recognized by special appropriations. There was no analysis of the needs of Student Services, even though the Legislature recognized the special problems of Student Services by directing that Student Services be integrated as a component of district workload standards. All of these factors should be considered when total support for the community colleges is determined in the future. None were considered in developing support levels in this analysis, and none are inherent in shifting from one finance system to another.

A significant second step in the development of an adequate finance system for the community colleges would be to move from use of unit cost analysis for allocation of funds to use of unit cost analysis for justification for increased funding.

While no additional funds were suggested on the basis of unmet needs or program support level adjustments, additional funds would be required to avoid imposing losses on some districts during the transition.

(detail to be added)

D. Legislative Authorization Needed

(to follow)

APPENDICES

APPENDIX A

Advisory Committees' Membership

Differential Funding Study

CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

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CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

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CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

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APPENDIX B

Glossary

Differential Funding Study

CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

GLOSSARY

ADA -- Average daily attendance. Unit used as basis for computing State apportionment for the California Community Colleges. Currently, 525 hours of attendance in approved courses equal one ADA.

BASE REVENUE -- The amount of revenue assigned to each community college district as a starting point for computing apportionment. The base revenue is then adjusted according to incremental cost adjustments, equalization adjustments, plus inflation adjustments as defined by legislative action.

BLOCK GRANT -- A fixed sum allocation, not related to enrollment/ADA measures, provided a district by the State.

CATEGORICAL FUNDS -- Funds allocated for a specific purpose which can only be expended for that purpose. For example: EOPS and Programs for the Substantially Handicapped are supported through categorical funds.

COSTS -- (Costs mean many things to many people. Following are various kinds of costs with proposed definitions for reference during this Study.)

DIRECT COSTS -- Costs incurred only in the provision of, and attributed only to, an identified program or activity.

INDIRECT COSTS -- Costs of services in support of all or several programs or activities, portions of which may be attributed to a specific program or activity.

START-UP COSTS -- Initial, one-time costs incurred in starting a new program or activity.

FIXED COSTS -- On-going costs that must be incurred regardless of enrollments.

VARIABLE COSTS -- Costs that change as enrollments change.

TOTAL COSTS -- The sum of fixed costs plus variable costs.

AVERAGE COSTS -- Total costs divided by the number of students served.

INCREMENTAL COSTS -- Changes in cost per student or other workload unit when adding or losing, respectively, a group of students.

MARGINAL COSTS -- Changes in costs for a change in one student or one unit of workload.

DIFFERENTIAL FUNDING -- A system in which funds are generated by programs or activities based on, or related to, the cost of providing the program or activity. For example: Although not supported by cost data, except as compared with K-12, noncredit instructional activities generate funds at a rate of $1,100 per ADA as differentiated from support rates for credit ADA.

FTE -- Full time equivalent. May refer to full-time equivalent students, teachers, or support personnel. Often used as a unit for determining support for educational services. Generally credit hours rather than contact hours are used to determine FTE students.

TOP -- A taxonomy of programs utilizing code numbers to provide a common taxonomy by which districts and colleges identify programs. TOP is a hierarchical classification of disciplines, subdisciplines and programs.

WORKLOAD MEASURES -- Quantity indicators by which the instructional volume or the volume of other activities is measured. For example: Instructional volume is now measured by ADA.

9/24/84

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APPENDIX C

Possible Support Categories
(January, 1984)

Differential Funding Study

CALIFORNIA COMMUNITY COLLEGES

Differential Funding Study

Possible Support Categories
(January, 1984)

Below are listed several possible combinations of support categories. Discussion with representatives of Analytical Studies and Fiscal Services suggest that data can be analyzed and, then, aggregated in any of the combinations or in other combinations. It should be noted that differentiated categories exist already: (A) Credit; (B) Noncredit; and (C) Apprenticeship.

I. FROM: Long-Term Finance Plan: Recommendations for the 1980's. Board of Governors, Sacramento, September 1979.

A. Traditional Classroom Instruction

B. Individualized Instruction

C. Support Services

D. Administration

E. Maintenance and Operation (This was deleted by Board of Governors before adoption of the Plan.)

For purposes of analysis, this set of categories might be expanded slightly, as follows:

A. Instructional Services (by instruction mode)

1. lecture
2. laboratory
3. lecture/laboratory
4. individualized instruction

B. Student Services (including (1) admissions and records; (2) counseling and guidance; and (3) other student services)

C. Maintenance and Operation

D. Other Support Services (including (1) general institutional services; (2) instructional support; (3) instructional services; and (4) planning and policy making)

II. FROM: Principles for Community College Finance, California Postsecondary Education Commission, March 21, 1983. "...at present, the Budget and Accounting Manual of the California Community Colleges lists fifteen program classifications which distinguish among district expenditures. For budgetary purposes, these fifteen could be judiciously combined into a smaller number that encompasses all the activities of the community colleges."

For purposes of analysis, this set of categories might be "judiciously combined" as follows:

A. Instructional Programs

1. general academic
2. vocational-technical
3. health occupations

These are, also Michigan's categories

OR

Various other combinations of TOP categories

OR

All TOP categories (for analysis and later combination)

B. Instructional Support Services

C. Institutional Services and Administration

D. Student Support Services

E. Maintenance and Operation of the Plant

(Community services, ancillary services, auxiliary operations and capital outlay can be omitted for our purposes.)

Possible Support Categories

III. FROM: Pickens, William H., "Statewide Formulas to Support Higher Education", manuscript prepared for delivery to National Conference of State Legislatures, 1983.

"Recently, several states have adopted the following base factors which they consider appropriate for the various budget areas:

Instruction and Departmental Research

Organized Activities Related to Instruction

Libraries

General Administration

Student Services

Organized Research

Physical Plant Operation and Maintenance"

For purposes of analysis, this set of categories might be slightly re-stated as follows:

A. Instruction

  1. (any combination of disciplines previously suggested or other combination), or

  2. (mode of instruction as in I above)

B. Instructional Support and Services

C. Student Services (including (1) admissions and records; (2) counseling and guidance; and (3) other student services)

D. Administrative Services (including (1) general institutional services; and (2) planning and policy making)

E. Maintenance and Operation

Possible Support Categories

IV. With inferences and additions, from Breneman, David W., and Susan C. Nelson, Financing Community Colleges -- An Economic Perspective, The Brookings Institution, Washington, D.C., 1981.

A. Instructional Services

1. academic (general education)

2. vocational-technical

3. developmental (remedial)

4. community services

B. Student Services (including (1) admissions and records; (2) counseling and guidance; and (3) other student services)

C. Support Services (including (1) administrative support services; and (2) maintenance and operations)

Possible Support Categories

V. FROM: Course Classification (instructional services only)

A. BA/Transfer

B. AA/AS Degree

C. Compensatory

D. Development/Survival

E. Community Education

F. Occupational Education

VI. FROM: Categories in Use in Illinois System (instructional services only)

A. Transfer (and AA/AS)

B. Business Occupational

C. Technical Occupational

D. Health Occupational

E. Remedial/Developmental

F. Adult Basic and Secondary

G. General Studies

VII. FROM: Categories in Use in New Jersey (instructional services only)

A. Liberal Arts

B. Laboratories

C. Light Technologies

D. Allied Health and Heavy Technologies

E. Remedial

F. Noncredit

APPENDIX D

Final Report on Field Visits

Differential Funding Study Project

REPORT ON FIELD VISITS

Differential Funding Study

August 1984

California Community Colleges
Differential Funding Project
Report on Field Visits
August, 1984

I. BACKGROUND

In order to obtain historical cost data for each instructional area, it was determined to use the existing data files which colleges periodically submit to the Chancellor's Office.

Data from five reports were used:

(1) The 311 Financial Report (General Fund Expenditures by Activities);
(2) The Course Classification Report;
(3) The Course Activity Measures Report;
(4) The Staff Data Report; and
(5) The 320 Attendance Report.

The data submitted for 1982-83 by all seventy districts were used in the analysis. It should be noted that these reports were primarily designed by the Chancellor's Office to be used to provide information for current funding procedures or for various state and federal reporting purposes and were not designed to provide cost analysis data for differential funding. However, since these data were the best source of information available regarding disciplines and costs associated with those disciplines, the decision was made to combine the information from the various reports to try to determine what cost differences existed in disciplines and what caused those cost differences. Since the reports were all collected separately and some were completed at different times of the year, integrating the information proved to be a difficult task. As the preliminary analysis was being completed, the project staff found a number of inconsistencies within the different reports that were difficult to reconcile.

Examples of these inconsistencies were:

1) The ADA totals as reported on the 320 Attendance Report were not consistent with the computed ADA from the Course Activity Measures Report.

2) When the data from the financial report were combined with the credit data from the Course Activity Measures Report, some districts showed costs in discipline areas but no credits, and other districts showed credits with no associated costs.

3) It appeared that in certain discipline areas the districts were not consistently assigning courses to the same TOP Code. (An explanation of TOP Codes appears in Taxonomy of Programs, July, 1983, the California Community Colleges. (An example of TOP Aggregation for Agriculture is included in Appendix A.) For example, Remedial English appeared to be reported by some dis-

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tricts under the 1501 General English Code whereas other districts reported these same courses under the 4930 Developmental Code.

Since it was important to have comparable information to analyze differences in discipline costs, the project staff decided to conduct field visits to learn more about why differences existed in the different reports.

II. PURPOSE OF THE FIELD VISITS

The field visits were designed for the following purposes:

(1) To determine whether problems existed with definitions and reporting requirements;

(2) To document data reporting inconsistencies among the districts;

(3) To determine costs associated with changes in data collection that might be necessary for differential funding.

Twenty-nine college districts were visited, which represents just under half of the colleges within the state. Table I shows the districts interviewed, their size, geographic location, percentage of noncredit courses, and single or multi-campus designation. A standard interview form was completed by the interviewer on-site at each of the districts. Generally, the two hour group interviews included the following district representatives:

(1) The chief fiscal administrator,
(2) The chief instructional administrator,
(3) The personnel director (or the person responsible for the Staff Data Report),
(4) The person responsible for the 320 Attendance Report, and
(5) Data processing staff.

DIFFERENTIAL FUNDING STUDY

TABLE I

DISTRICTS INTERVIEWED

Districts	Fall 1982 Enrollment	Multi-Campus/ Single	North/South	% Non-Credit
Allan Hancock	10,321	S	S	15.9
Butte	8,994	S	N	9.7
Cabrillo	11,458	S	N	.6
Chaffey	13,850	S	S	11.4
Fremont-Newark	8,292	S	N	--
Gavilan	3,182	S	N	10.
Lake Tahoe	1,491	S	N	--
Los Angeles	135,529	M	S	.2
Los Rios	46,482	M	N	--
Mira Costa	8,515	S	S	13.4
Monterey	8,405	S	N	1.0
Mt. San Antonio	28,453	S	S	8.9
Mt. San Jacinto	3,678	S	S	--
Napa	8,973	S	N	19.4
North Orange	66,611	M	S	20.0
Palomar	18,881	S	S	6.7
Rancho Santiago	16,225	S	S	19.5
Riverside	15,696	S	S	.8
San Diego	62,239	M	S	34.7
San Francisco	70,104	M	N	48.0
San Joaquin Delta	17,173	S	N	1.4
San Luis Obispo	5,893	S	S	--
San Mateo	30,518	M	N	--
Shasta	8,948	S	N	5.3
Sierra	10,006	S	N	2.4
Siskiyous	2,862	S	N	4.4
South County	21,728	M	N	.2
Yosemite	15,018	M	N	5.7
Yuba	8,430	S	N	1.0

III. RESULTS OF THE FIELD VISITS

A. General Impressions

It was the opinion of both interviewers that the districts were eager to do an accurate job of reporting information to the state. When differences were uncovered due to interpretation errors, districts appeared to be willing to make changes necessary to report information in the correct categories. Likewise, many people interviewed expressed appreciation for help received from the Chancellor's Office staff when data problems developed.

Further, it appeared that the capability for providing information is improving. Reports that were difficult to complete when they were first designed are becoming more accurate as the districts work out problems within their data processing programs and come to agreement with the Chancellor's Office on definitional problems.

Districts were candid about their internal data collection problems and were equally candid about their problems with certain definitions and procedures at the Chancellor's Office.

In general, the districts felt that the definitions and reporting requirements change too rapidly and they do not have enough staff to keep up with the changes. This is particularly true in the data processing area. Changes cause new programming demands and in many cases there are not sufficient staff to implement the changes in a timely fashion.

Definition problems were also a major concern. Many colleges felt that the definitions used were not rigorous enough and allowed too much interpretation. Although a lack of rigor might be acceptable for certain reporting, it becomes essential when data are used to develop comparable information for differential funding analysis.

B. Specific Problems Related to Each Report

1. 311 Financial Report (General Fund Report Expenditures by Activity)

The districts appear to have the most confidence in the 311 report. Twelve districts indicated they had no problems with either completing the report or interpreting definitions. This report is computerized in twenty-five of the twenty-nine districts, although many times it is computerized on a different computer system from that used for other college reports. In five districts the 311 information is stored and produced by the county computer system. This presents special problems in integrating the financial data with the course or staff data. It also produces problems when requirements are changed, as some county offices do not seem to be able to accommodate the changes quickly. In another five districts the financial data is stored on a different college computer than the course and staff information. Four districts were still producing the 311 Report manually.

When asked to rate the internal accuracy of the 311 as it was produced in 1982-83, twenty districts indicated they were extremely confident about the accuracy, six were fairly confident and one district was not sure because of a change in their computer system that particular year.

2. Course Activities Measures and Course Classification Reports

These reports are generally produced by computer and are generally part of the same data base in most districts. Only four districts do not computerize the Course Classification Report and only two districts do not computerize the Course Activities Measures Report. Six districts reported no problems with either of these reports. Changes in definitions were reported as the major problem in each of the reports. Five colleges reported problems with appropriately classifying courses in TOP Codes.

In rating the internal accuracy of the reports for 1982-83, 16 districts gave the Course Classification Report extremely confident ratings; 5 rated it fairly confident; 3 indicated they were not sure; and 2 districts were not confident. It should be noted that this was the first year the Course Classification Report was implemented.

The Course Activity Measures Report, which was one of the first reports implemented by the Chancellor's Office, was rated as extremely confident by 19 districts; fairly confident by 9 districts; and not confident by one district.

3. Staff Data Report

The report which caused the most difficulty for the districts, the Staff Report, is also the newest report to be implemented. Thirteen districts cited definition problems as the most important problem area. Ten districts reported difficulty with reporting FTE faculty. Five districts indicated the November reporting timeline was difficult. Four districts indicated the Chancellor's Office made too many changes in the report. Other problems cited by one or more districts were: faculty contract variability, new hires, promotions, post-retirement faculty, and dual assignments for personnel who are both faculty and classified.

Only seven districts reported that they were extremely confident of their 1982-83 report, nineteen were fairly confident and two were not sure.

4. Integration of Data Files

Districts were asked whether they could cross-index or integrate their internal staff, course and fiscal data. Six districts indicated they had the ability to integrate the different data files but currently were not doing it. The majority of districts, twenty-two, were not able to integrate their data files.

C. TOP Code Reporting

In addition to problems with the specific reports, the interviews revealed inconsistencies in TOP Code reporting. These inconsistencies in the 1982-83 data would make any accurate discipline costing comparisons virtually impossible.

Districts were asked to indicate how they categorized certain courses by four-digit TOP Codes. Table II shows TOP codes used in each area along with the number of districts using each code.

In addition to the TOP inconsistencies that existed between districts, there were also inconsistencies within the same district. These were likely to occur for the following reasons:

(1) In a multi-campus district, TOP Code assignments, which usually originate with the Instructional Office, may vary if Deans of Instruction at the colleges within a district do not coordinate the assignment process.

(2) Faculty salaries are a large part of district expenditures. These salaries are classified according to the appropriate TOP Code. However, when full-time faculty are re-assigned to a new discipline and the corresponding TOP Code is changed it may be recorded in the Instruction Office months before it is recorded in the Business Office. Consequently, expenditures could be accruing to the wrong TOP Code until the change is made in the business area. The reason for the delay given by most districts is lack of adequate personnel. If choices must be made, operational needs are placed before reporting needs, which are generally completed during "down" times.

(3) In a few districts TOP Codes assigned in instruction are not the same TOP Codes as those used in the business area. This is generally caused because TOP's are assigned separately by personnel in the two areas. This is further compounded by the fact that each district's budgeting is unique and historically precedes the use of TOP Codes. TOP Codes were added for state reporting purposes but generally do not correspond to organizational structures used for budgeting purposes. The TOP Code inconsistencies reported by the districts for 1982-83 are being corrected. Many districts reported revising or changing codes within

the last two years which would result in more consistent data. However, there are still areas where philosophical differences exist between how the Chancellor's Office wants to classify a particular course and how the field feels the course should be classified.

Other problems are related to the TOP Code levels (2-digit or 4-digit) that currently are used in the different reports. The 311 Report shows expenditure by two-digit TOP Code level. The Course Activity Measures Report and the Staff Report show activity and salary data at the four-digit TOP Code level. This makes it possible to integrate the reports at the two-digit level but not at the four-digit level. In order to integrate the fiscal data with four-digit staff and course data districts would have to keep their internal financial records at the four-digit level.

The field visits showed that eighteen districts are already producing four-digit expenditure data but eleven districts are currently using the two-digit level required for fiscal reporting. It would be a considerable cost for some of these districts to convert to the four-digit level because the financial coding would increase from approximately 20 categories to 250 categories. District projections of personnel, hardware and software costs associated with this change were requested during the interviews and will be summarized when all have been received.

Districts reported having difficulty categorizing certain courses into TOP Codes. Specific courses which were reported as difficult to classify appear in Appendix B.

D. Special Problem Areas

1. Summer Session

Summer session presented a special problem in some districts because the sessions cut across two fiscal years. Expenditures were split into two fiscal years according to when they occurred, but the corresponding attendance figures were reported in the year when the summer session ended. Only six of the districts reported expenditures and attendance in the same fiscal year.

2. Contract Classes

Thirteen districts reported contract classes in the Course Activity Measures report while eleven did not.

These classes may or may not be ADA generating and, consequently, were included in the 320 Attendance Report while others were not. Likewise, fourteen districts included the salaries

TABLE II

TOP CODE USES

COURSE	TOP CODE ASSIGNED	NUMBER OF COLLEGES
Writing Below English 1A	1501 - English	22
	4930 - General Studies	3
	1501 & 4930	3
	1501 & 1530	1
Pre Algebra Classes	1701 - Mathematics, General	26
	4930 - General Studies	2
	0501 - Business and Commercial)	1
	0958 - Sanitation & Public Health)	
	1701 - Math, General)	
School Newspaper	0602 - Journalism	19
Electronics	0934 - Electronics & Electric Technology	20
	0925 - General Engineering	4
	1902 - Physics, General	1
Diesel Technology	0947 - Diesel Technology	6
	0900 - Engineering	1
	0948 - Automotive Technology	4
	0957 - Civil and Construction Management Technology	1
	0116 - Agriculture and Forestry Power Machinery	3
Guidance/Human Development	2107 - Human Services	2
	4930 - General Studies	14
	4900 - Interdisciplinary Studies	2
	2201 - Social Science, General	1
	0899 - Other, Education	1
	4901 - Liberal Arts & Science	1
	2001 - Psychology, General)	1
	4930 - General Studies)	
	1300 - Consumer Education and Home Economics	1
	2100 - Public Affairs & Services	1
	2001 - Psychology Services)	1
	1999 - Other, Physical Services)	

TABLE II

TOP CODE USES

COURSE	TOP CODE ASSIGNED	NUMBER OF COLLEGES
Apprenticeship	0900 - Engineering and Related Technologies by Discipline	5
	5300 - Old TOP Numbers for Apprenticeship	9
	5300 - Old TOP) 0900 - Engineering and Related) Technologies)	3
Work Experience	By Discipline	9
	4931 - Old TOP Code	5
	0599 - Other, Business and Management	2
	0501 - Business and Commerce, General	1
	5300 - Old TOP Apprenticeship	1

of the contract instructors in the staff data report by their appropriate discipline area, but eleven districts did not include these salaries in the staff data report.

3. Non-Instructional Salaries

Districts reported non-instructional salaries, such as the salary of a department secretary, two different ways. Sixteen districts reported assigning this type of non-instructional salary to the appropriate discipline area, but eleven districts assigned these non-instructional salaries to the 6000 TOP Code (Instructional Support). This could cause discrepancies in discipline costs unless the costs currently assigned to 6000 were pro-rated to the instructional areas. The use of the 6000 TOP Code was particularly prevalent in smaller colleges. Because clerical support for a particular division would encompass a number of different instructional TOP Codes, small colleges felt it was more practical to use the 6000 category for all salaries of this nature rather than allocating a small dollar amount to each TOP Code.

4. Non-Credit Instruction

Of the districts which reported offering non-credit classes, twenty included the course information in the Course Activity Measures report and three did not. Six districts reported little or no non-credit instruction.

Eleven districts paid non-credit instructors on a different salary schedule than credit instructors. Other districts used the same salary schedule but restricted non-credit instructors to Step 1. The salary schedule for non-credit instructors generally reflected a lower rate of pay than the salaries of regular full-time credit instructors.

Eleven districts were able to separate the ADA and expenditures for non-credit instruction from the ADA and expenditures for credit instruction. Four districts reported they were able to separate the ADA but were not able to separate the expenditures associated with non-credit instruction. Three districts were not able to separate either ADA or expenditures.

5. Department Chair/Division Chair

The districts distributed the cost of the department chair differently. Fourteen districts indicated department chairs were distributed proportionately to TOP or Activity Code 6000 (Instructional Support) and to their respective teaching disciplines.

Six districts distributed costs totally to instructional disciplines and four districts distributed costs to TOP Code 6000 Instructional Support. There appear to be inconsistencies in the way colleges reported the costs of department chairs, division chairs and assistant deans and the cost of those support personnel who report directly to them.

6. Capital Outlay

Most districts interviewed categorized capital outlay expenditures by the appropriate two-digit TOP Code within the instruction area. However, four districts put all capital outlay expenditures in TOP or Activity Code 7100.

7. Consistency Between Attendance Reporting and Course Activity Measures Report

Because attendance data is not reported by instructional discipline and the Course Activity Measures file does include information which would allow ADA to be calculated, the original analysis concentrated on using the Course Activity Measures file to develop ADA by discipline. The resulting ADA totals were compared to the total ADA reported on the 320 Attendance Report to check how similiar they were. Because this comparison revealed different ADA totals for almost all districts, the results were checked during the field interviews. Districts were asked to give reasons why these two ADA numbers might vary. They cited the following reasons:

(1) Different reporting dates.

(2) Course Activity Measures Report was a projection of positive attendance - accurate positive attendance data were reported on the 320 Report.

(3) Variable Units of Credit were reported as maximum or minimum numbers on the Course Activity Measures Report.

(4) Out-of-State students included.

(5) Foreign students included.

(6) Classes that carry over from one semester to the other included.

(7) Contract class enrollments included in Course Activity Measures not in 320 Report.

IV. SUMMARY

Comparable information was needed from the college districts in order to analyze differences in discipline costs. Inconsistencies found within the different reports from the districts were difficult to reconcile. Field visits to twenty-nine of the seventy districts were made to learn why differences existed among the various reports.

District personnel were eager to report information accurately to the State and were appreciative of assistance from the Chancellor's Office when data problems developed.

There were few problems with reports of attendance (320 Reports) since this is key information, is subject to audit, and has been collected for some time. Next to attendance reports, district personnel indicated the most confidence in the 311 Report (General Fund Report of Expenditures by Activity).

Less confidence was expressed in the Course Activities Measure and Course Classification Reports and even less confidence was expressed in the Staff Data Reports. Several factors were identified which appear to contribute to inconsistencies among the reports.

1. Different offices or departments at the State level and at the district level are responsible for the reports without adequate communication or coordination among the different departments at each level.
2. There are varying interpretations of definitions and of some TOP (Taxonomy of Programs) categories.
3. There are frequent changes in definitions, categories, or reporting procedures with varying degrees of time-lag for adherence to changes.
4. There are various cut-off times for different reports.
5. There are varying levels of data processing capability among districts.
6. Some districts are dependent upon county offices which may use coding systems different from those of the college district. Some counties have difficulty in making changes in definitions or procedures.
7. There are inconsistencies in the manner in which some activities are reported, such as summer session and noncredit program activities.

V. CONCLUSIONS

1. Current data, obtained regularly from the community college districts, are adequate for current funding procedures. Data driving current appropriation formulas are subject to audit and are valid. That is true, also, for categorically funded programs such as EOPS and HSPS.
2. In the composite, attendance and budget and expenditure data are accurate. At a lower level of detail (sub-disciplines within instructional program areas) inconsistencies occur. Because of these

inconsistencies, as identified in the 1982-83 data, it is not possible to identify expenditures at the four-digit (sub-discipline) level. It is not possible, therefore, to differentiate among instructional disciplines with existing data. Data are adequate to provide a basic framework for differential funding but not for a fully developed and implemented system.

3. Full implementation of differential funding will require significant changes and improvements in the data and information system.

Among changes or improvements required are the following:

a. A policy commitment to an integrated, updated and upgraded data system.

b. A common Taxonomy with consistent definitions and categories.

c. An integrated information system with linkages among data sets.

d. Coordination and consistency among data requests at the State level.

e. Coordination and consistency among data reports at the college or district level.

f. Identification of required basic data elements.

g. Consistent and timely reporting of both direct and indirect unit costs.

h. Enforcement of reporting requirements.

i. Upgraded computer capability at the State and local levels.

j. Adequate resources, at all levels, to support the system.

Appendix A

Example of TOP Aggregation
for
The Area of Agriculture

Two-Digit TOP Code Level

*0100.00 AGRICULTURE AND NATURAL RESOURCES

Subject matter concerned with the production of food and fiber and the conservation and development of the resources of arable and wild land, including forest, wildlife, range, fisheries, water and outdoor recreation.

Four-Digit TOP Code Level

*0101.00 AGRICULTURE/NATURAL RESOURCES, GENERAL

Concentration in two or more specific areas of agriculture/natural resources without major emphasis in any one (irrigation, soil management, fertilizers, pest control, and plant breeding).

.10 General Agriculture

*0102.00 AGRICULTURE PRODUCTION

Study of the theories, principles and application of technical skills as they apply to managing and producing animals, food crops and bees and managing an agricultural production enterprise including the study of animal breeding, nutrition and disease and pest control, economics, record analysis, purchasing and marketing.

* .10 Livestock Management
.40 Plant Science
.50 Farm Management

*0109.00 ORNAMENTAL HORTICULTURE

Study of the theories, principles and application of technical skills as they apply to the design and maintenance of ornamental horticulture areas and the production of ornamental horticulture plants.

* .10 Ornamental Horticulture Management

*0112.00 AGRICULTURE SERVICES

Study of the principles and application of technical skills as they apply to the selling, servicing, inspecting of products by agriculture producers. The study of laws of regulations, principles, practices and licensure requirements of agricultural pest control advisors, animal health technicians, and artificial insemination technicians.

* .10	Agri-business (Sales and Services)
* .20	Agricultural Inspection
.30	Agricultural Pest Control Advisors and Operators (Licensed)
.40	Animal Health Technicians (Licensed)
.50	Artificial Inseminator (Licensed)
.60	Farrier
.70	Animal Grooming and Training
.80	Food Processing

*0114.00 FORESTRY

Study of the science, art and practices of managing and using forest lands for human benefit and managing natural resources and public and private timberlands.

* .10	Timber Management
* .20	Forest Protection
* .30	Forest Engineering

*0115.00 NATURAL RESOURCES

Study of the theories, principles, laws and regulations and application of skills as they apply to use and conservation of renewable natural resources (range management, wildlife and game, fish management and recreation).

* .10	Natural Resources Management

*0116.00 AGRICULTURAL AND FORESTRY POWER AND MACHINERY

Study of the theories, principles and application of technical skills as they apply to the selection, maintenance, adjustment, repair and operation of forestry, ornamental horticulture, and farm machinery and equipment. Study of the selection, utilization, repair and adjustment of power sources used in agricultural, forestry and ornamental horticultural enterprises. Study of small engines, irrigation pumps and hydraulic systems.

* .10	Equipment and Machinery, General
* .30	Farm Mechanics

*0199.00 OTHER, SPECIFY

* Vocational

Appendix B

List of Courses District Had Difficulty Categorizing by TOP Code

Name of Course	Number of Districts
Work Experience	4
Remedial Programs	4
Technical Areas	3
Child Development	2
Apprenticeship	2
Micro-Computer	2
Counseling & Guidance	2
Engineering	2
Health Occupation	2
Business Math	1
Business English	1
Ski Patrol	1
Food Service Technician	1
Refrigeration	1
Retail Floristry	1
Police Academy	1
Fire Science	1
Foreign Study	1
Staff Development	1
ESL	1
Applied Arts & Science	1
Parenting	1
Staff Development	1

APPENDIX E

Basic Descriptive Data For:

Instruction

Student Services

Plant Maintenance and Operation

General Support

Differential Funding Study

CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

INSTRUCTIONAL EXPENDITURES PER ADA
(ACTIVITIES 0100-6199)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	INSTR $ PER ADA	% OF BUDGET	FAC SAL PER ADA	AVE FAC SALARY	1982-83 ADA	FACULTY FTE	ADA PER FAC FTE	WFCH / FAC FTE	% FT FAC FTE	% ASF LAB	ADA CHG 77-78
ALLAN HANCOCK	1156	67.56	847	28457	6929	216.89	31.95	15.9	58.19	49.5	-2.27
ANTELOPE VALLEY	1225	67.05	986	28563	3698	144.53	25.59	17.9	65.02	53.8	1.23
BARSTOW	1627	61.00	1348	33459	1017	38.50	26.42	16.9	76.82	51.2	-15.32
BUTTE	1172	64.72	847	28495	6150	217.98	28.21	18.6	57.60	52.4	17.34
CABRILLO	1393	69.27	1106	28799	6823	251.55	27.12	15.1	73.53	46.5	.80
CERRITOS	1228	68.87	937	34710	14292	387.82	36.85	15.9	58.68	48.2	4.05
CHAFFEY	1540	69.06	1116	30837	7709	330.41	23.33	17.5	68.52	43.7	-17.80
CITRUS	1199	64.53	923	32606	6024	222.72	27.05	19.9	72.04	50.2	1.50
COACHELLA VALLEY	1604	60.94	1355	33350	3830	221.00	17.33	21.5	63.84	49.6	-15.64
COAST	1431	73.38	982	33699	32273	1054.15	30.62	16.5	63.10	47.4	2.70
COMPTON	1412	57.59	1112	29949	3129	104.48	29.95	16.6	68.52	48.6	-31.26
CONTRA COSTA	1425	69.28	1135	34595	19475	623.99	31.21	15.4	67.87	46.1	-1.65
EL CAMINO	1431	67.66	1108	34523	15093	470.33	32.09	16.0	70.16	46.6	-.07
FOOTHILL-DEANZA	1304	71.57	991	34188	23192	739.81	31.35	15.3	58.94	44.3	-6.23
FREMONT NEWARK	1347	64.54	1081	29491	4764	184.50	25.82	16.1	57.27	42.3	10.28
GAVILAN	1570	68.44	1195	28634	2299	103.55	22.20	19.5	77.63	50.7	8.34
GLENDALE	1171	68.16	885	30475	8778	303.29	28.94	15.7	54.03	49.1	32.20
GROSSMONT	1274	64.44	1079	30256	10773	353.67	30.46	14.7	57.67	41.6	5.96
HARTNELL	1328	68.92	1044	29805	4572	170.19	26.86	19.1	78.56	51.8	.95
IMPERIAL	1633	64.75	1168	28293	3018	122.54	24.63	14.7	59.98	43.4	-.17
KERN	1555	65.53	1184	30484	10334	459.16	22.51	16.2	58.88	45.5	-6.82
LAKE TAHOE	1767	53.21	1356	29142	538	31.37	17.15	15.8	56.67	17.1	-7.56
LASSEN	1211	59.92	881	28111	2187	85.34	25.63	17.4	47.15	45.8	-2.97
LONG BEACH	1389	66.75	1009	33376	15744	511.75	30.76	14.2	57.40	50.0	-6.25
LOS ANGELES	1666	61.20	1268	33543	72391	2443.66	29.62	14.2	67.55	45.1	-3.44
LOS RIOS	1251	64.19	976	30260	28250	954.32	29.60	16.3	71.95	48.1	2.39
MARIN	1521	66.19	1159	29957	7389	305.78	24.16	18.3	70.69	42.4	-.71
MENDOCINO	1654	59.58	1110	29039	1371	66.51	20.61	16.9	52.41	36.1	17.28
MERCED	1126	64.16	903	31096	5919	150.92	39.22	13.9	59.86	55.4	.77
MIRA COSTA	1401	64.21	1055	34238	4490	150.08	29.92	14.9	60.19	47.4	12.31
MONTEREY PEN.	1221	68.17	921	29822	5300	174.38	30.39	15.7	71.47	46.5	-9.45
MT SAN ANTONIO	1286	65.75	1032	34682	14401	440.37	32.70	17.0	66.83	46.4	16.40
MT SAN JACINTO	1263	57.41	1045	30863	1892	60.57	31.24	17.9	77.58	51.9	34.09
NAPA VALLEY	1380	69.70	1053	28499	4769	199.69	23.88	15.9	59.22	40.0	.06
NORTH ORANGE	1157	65.22	910	32807	27663	848.97	32.58	15.8	60.83	49.3	1.92
PALOMAR	1393	73.47	1004	32151	11051	380.56	29.04	16.8	59.87	50.1	11.83
PALO VERDE	1490	57.20	1311	28900	355	20.66	17.19	15.8	62.15	28.5	-8.03
PASADENA	1365	65.59	1049	31576	14752	498.92	29.57	17.6	75.40	45.9	-8.15
PERALTA	1267	61.00	929	27617	20296	578.64	35.08	11.5	80.86	48.8	-2.84
RANCHO SANTIAGO	1239	70.40	890	30672	16225	526.71	30.80	13.5	63.76	43.6	31.22
REDWOODS	1487	69.55	1146	29260	5065	193.42	26.19	16.1	54.63	54.2	-1.97
RIO HONDO	1476	68.62	1167	33999	8147	277.26	29.38	17.4	72.56	48.0	-2.21
RIVERSIDE	1194	67.19	920	32117	8759	245.92	35.62	14.7	58.28	49.2	-.75
SADDLEBACK	1421	66.12	1138	35786	13537	461.86	29.31	17.3	47.99	42.0	65.67
SAN BERNARDINO	1309	60.10	976	31017	11298	400.18	28.23	17.1	64.10	50.8	-6.33
SAN DIEGO	1115	60.53	909	27248	35192	1555.29	22.63	18.3	54.57	47.0	4.12
SAN FRANCISCO	1206	66.32	953	28812	34615	1414.55	24.47	17.9	56.15	43.1	16.39
SANJOAQUIN DELTA	1324	66.33	1084	35755	10705	374.66	28.57	20.7	81.84	50.0	-5.00
SAN JOSE	1463	66.44	1116	33305	11851	410.95	28.84	16.6	58.82	51.5	9.50
SAN LUIS OBISPO	1150	60.53	939	32360	3803	127.32	29.87	17.7	58.21	55.0	14.86
SAN MATEO	1626	73.31	1120	33684	16932	567.28	29.85	16.0	66.46	44.3	-7.85

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CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

INSTRUCTIONAL EXPENDITURES PER ADA
(ACTIVITIES 0100-6199)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	INSTR $ PER ADA	% OF BUDGET	FAC SAL PER ADA	AVE FAC SALARY	1982-83 ADA	FACULTY FTE	ADA PER FAC FTE	WFCH / FAC FTE	% FT FAC FTE	% ASF LAB	ADA CHG 77-78
SANTA BARBARA	1132	68.19	924	29945	8913	312.07	28.56	16.6	52.20	49.8	1.77
SANTA CLARITA	1203	51.99	936	30550	1951	76.28	25.58	18.2	70.08	54.7	18.10
SANTA MONICA	1107	64.32	870	33204	11546	323.25	35.72	14.0	55.49	47.5	-2.12
SEQUOIAS	1547	66.71	1197	36250	5113	206.08	24.81	16.8	74.90	48.4	3.42
SHASTA	1357	67.58	1015	32688	5478	193.11	28.37	18.1	69.71	50.9	-4.16
SIERRA	1217	64.39	970	30114	5836	209.64	27.84	16.7	66.22	44.0	4.68
SISKIYOUS	1666	70.41	1231	27607	1715	69.31	24.74	14.9	65.83	39.6	8.89
SOLANO	1194	65.10	1009	29899	5489	199.06	27.58	17.4	69.38	48.0	-9.09
SONOMA	1303	74.37	891	32073	13305	431.20	30.86	16.7	51.32	48.9	16.75
SOUTH COUNTY	1402	69.93	1033	32957	11503	355.50	32.36	15.3	58.37	44.3	15.57
SOUTHWESTERN	1253	65.16	1027	32593	7918	263.36	30.06	17.2	67.76	47.9	-37.60
STATE CENTER	1220	64.14	959	30755	12172	394.12	30.88	17.2	77.74	52.8	45.11
VENTURA	1352	67.26	1033	31322	17597	625.86	28.12	16.1	51.93	47.3	2.57
VICTOR VALLEY	1505	63.50	1180	28591	2438	103.02	23.67	17.7	74.10	45.9	1.63
WEST HILLS	2149	59.96	1511	29839	1313	65.44	20.06	16.0	67.24	47.8	-8.18
WEST KERN	3234	55.08	2076	31757	652	44.82	14.55	19.3	69.97	47.7	1.24
WEST VALLEY	1280	67.51	1030	31527	13529	415.88	32.53	15.3	58.86	45.9	14.79
YOSEMITE	1659	67.30	1168	31531	9697	354.77	27.33	19.2	81.86	42.6	-9.38
YUBA	1307	67.27	980	31531	5843	212.38	27.51	22.2	74.48	43.7	4.47

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Differential Funding Study
Footnotes For Instruction

(1) Instr $ Per ADA: Expenditures for instruction, instructional support, and instructional services (activity codes 0100-6199) divided by 1982-83 total annual ADA.

(2) % of Budget: Percent column 1 represents of total operating expenditures per ADA (excluding capital outlay) in activity codes 0100-6799.

(3) Fac Sal Per ADA: Expenditures for instructional salaries and benefits in activity codes 0100-5399 divided by 1982-83 total ADA.

(4) Ave Fac Salary: Average full-time faculty salary in district from the fall 1982 staff data.

(5) 1982-83 ADA: Total annual attendance ADA reported by district in 1982-83 (includes apprentice and nonresident ADA).

(6) Faculty FTE: Total weekly faculty contact hours (WFCH) reported by distict in fall 1982 staff data divided by 16.0 WFCH.

(7) ADA Per Fac FTE: Column 5 divided by column 6.

(8) WFCH / Fac FTE: Average WFCH load for full-time faculty reported by the district in fall 1982 staff data.

(9) % FT Fac FTE: Percent of total WFCH taught by full-time instructors during fall 1982.

(10) % ASF Lab: Percentage of assignnable square footage (ASF) reported in laboratory and special facilities in the 1982 facilities inventory.

(11) ADA Chg 77-82: Percent change in total attendance ADA reported by district between the 1977-78 and the 1982-83 annual reports.

STUDENT SERVICES EXPENDITURES PER ADA
(ACTIVITIES 6200-6499)
FY 1982-83

DISTRICT NAME	STU SER EXP PER ADA	% OF BUDGET	1982-83 ADA	FALL 82 ENROLL	MAV PER ADA	% EOPS RECIPS	% AID RECIPS	% MINOR ENROLL	% NON-CREDIT	% FULL TIME
ALLAN HANCOCK	175	10.23	6929	10321	73372	1.71	5.80	40.30	15.9	20.9
ANTELOPE VALLEY	185	10.13	3698	7290	128790	3.42	6.10	19.50	.7	20.3
BARSTOW	287	10.76	1017	1705	129165	14.13	12.32	34.40	0.0	25.0
BUTTE	193	10.66	6150	8994	145044	4.44	17.59	23.90	9.7	32.5
CABRILLO	165	8.20	6823	11458	130596	3.15	13.09	19.20	.6	28.5
CERRITOS	145	8.13	14292	24170	88306	1.87	2.89	87.60	1.4	22.5
CHAFFEY	217	9.73	7709	13850	151406	2.64	6.63	31.30	11.4	28.0
CITRUS	174	9.36	6024	10052	89010	1.97	4.96	30.90	0.0	26.3
COACHELLA VALLEY	249	9.46	3830	7798	195475	2.01	8.71	24.70	11.8	17.3
COAST	126	6.46	32273	62673	90583	1.16	5.09	35.20	1.7	19.5
COMPTON	237	9.67	3129	4564	120271	10.78	38.54	69.50	0.0	33.8
CONTRA COSTA	153	7.44	19475	33975	184737	4.73	7.61	26.90	0.0	26.8
EL CAMINO	197	9.31	15093	29597	168889	3.29	6.50	48.30	.2	21.3
FOOTHILL-DEANZA	143	7.85	23192	37047	90309	2.92	8.85	45.50	0.0	25.1
FREMONT NEWARK	184	8.82	4764	8292	156030	2.34	4.74	30.60	0.0	26.7
GAVILAN	164	7.15	2299	3182	193051	5.22	16.81	38.90	10.0	33.4
GLENDALE	237	13.80	8778	16357	95806	3.19	7.24	44.20	19.3	20.4
GROSSMONT	190	9.61	10773	18193	111903	1.29	8.88	15.90	1.1	27.3
HARTNELL	133	7.21	4572	7052	184893	4.41	12.32	44.00	0.0	25.5
IMPERIAL	362	14.35	3018	4678	123619	16.57	27.70	69.40	0.0	41.6
KERN	221	9.31	10334	18474	198981	3.06	9.61	25.70	5.7	23.0
LAKE TAHOE	278	8.37	538	1491	310128	2.01	4.36	3.50	0.0	15.9
LASSEN	202	10.00	2187	2605	47439	11.82	19.04	16.60	1.9	30.0
LONG BEACH	206	9.90	15744	25303	107696	.91	12.15	46.10	6.4	20.5
LOS ANGELES	309	11.35	72391	135529	234637	6.42	7.71	69.00	.5	25.1
LOS RIOS	189	9.70	28250	46482	105777	2.29	13.08	34.60	0.0	28.8
MARIN	183	7.96	7389	10569	190154	7.73	14.14	16.40	15.1	25.9
MENDOCINO	297	10.70	1371	3564	278364	5.33	6.90	16.40	1.2	11.6
MERCED	215	12.25	5919	8368	92327	11.82	25.10	33.40	10.7	18.4
MIRA COSTA	230	10.54	4490	8515	219667	1.64	7.00	24.10	13.4	18.4
MONTEREY PEN.	193	10.78	5300	8405	120911	6.16	8.07	36.70	1.0	23.9
MT SAN ANTONIO	160	8.18	14401	28453	130106	1.40	4.23	49.20	4.9	22.0
MT SAN JACINTO	322	14.64	1892	3678	399170	5.60	15.17	17.10	0.0	21.3
NAPA VALLEY	124	6.26	4769	8973	102148	3.30	11.97	16.80	19.4	26.7
NORTH ORANGE	136	7.67	27663	66611	109562	1.31	2.95	35.50	20.0	13.4
PALOMAR	169	8.91	11051	18881	141041	4.09	6.20	22.30	6.7	24.5
PALO VERDE	268	10.29	355	763	161491	12.84	21.10	40.00	3.9	22.7
PASADENA	156	7.50	14752	22588	88586	4.19	12.71	51.80	9.9	27.4
PERALTA	220	10.59	20296	38993	117693	6.02	15.30	64.40	1.5	19.3
RANCHO SANTIAGO	143	8.12	16225	32808	147107	2.08	6.25	44.80	19.5	14.7
REDWOODS	120	5.61	5065	8026	116192	5.06	15.49	13.30	1.1	27.4
RIO HONDO	147	6.83	8147	11850	119528	5.65	11.81	64.80	7.5	24.9
RIVERSIDE	150	8.44	8759	15696	92646	1.86	9.40	29.90	.8	23.4
SADDLEBACK	114	5.30	13537	24560	246117	1.80	6.19	16.80	2.5	20.0
SAN BERNARDINO	169	7.76	11298	19720	104636	1.93	12.21	37.10	0.0	24.6
SAN DIEGO	164	8.90	35192	62239	95136	2.76	9.40	45.20	34.7	20.9
SAN FRANCISCO	129	6.76	34615	70104	127998	1.48	7.42	64.20	46.0	28.5
SANJOAQUIN DELTA	146	7.31	10705	17173	144375	4.65	10.48	43.10	1.4	27.7
SAN JOSE	185	8.40	11851	21787	189600	5.68	11.69	52.50	0.0	23.6
SAN LUIS OBISPO	148	7.79	3803	5893	259009	1.31	25.45	28.70	0.0	41.5

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CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

STUDENT SERVICES EXPENDITURES PER ADA
(ACTIVITIES 6200-6499)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	STU SER EXP PER ADA	% OF BUDGET	1982-83 ADA	FALL 82 ENROLL	MAV PER ADA	% EOPS RECIPS	% AID RECIPS	% MINOR ENROLL	% NON-CREDIT	% FULL TIME
SAN MATEO	194	8.75	16932	30518	220551	2.38	7.23	29.00	0.0	26.2
SANTA BARBARA	116	6.99	8913	18752	106668	2.50	9.38	20.20	18.2	31.5
SANTA CLARITA	200	8.64	1951	3487	173936	1.78	3.47	11.60	0.0	27.7
SANTA MONICA	144	8.37	11546	23001	62470	2.27	5.22	38.60	5.4	21.0
SEQUOIAS	249	10.74	5113	7326	168939	4.46	14.06	35.50	1.5	40.0
SHASTA	167	8.32	5478	8948	131571	2.29	24.49	13.20	5.3	30.6
SIERRA	136	7.20	5836	10006	148009	3.84	7.07	9.20	2.4	29.8
SISKIYOUS	155	6.55	1715	2862	140427	2.97	13.17	20.20	4.4	23.7
SOLANO	162	8.83	5489	9799	126969	2.20	6.56	38.60	.3	21.1
SONOMA	126	7.19	13305	22313	116073	2.16	16.69	22.10	15.9	23.6
SOUTH COUNTY	206	10.27	11503	21728	200364	3.25	7.62	33.20	.2	19.8
SOUTHWESTERN	163	8.48	7918	12333	171598	5.84	15.03	53.40	.2	32.2
STATE CENTER	163	8.57	12172	18179	97313	4.81	20.90	41.70	3.1	40.4
VENTURA	200	9.95	17597	30729	135054	3.06	6.01	28.50	4.0	25.9
VICTOR VALLEY	302	12.74	2438	5012	128105	6.05	9.02	21.80	3.7	20.9
WEST HILLS	390	10.88	1313	2153	399532	5.99	19.70	36.40	1.5	27.3
WEST KERN	605	10.30	652	959	1097834	6.15	38.48	14.20	6.0	32.2
WEST VALLEY	141	7.44	13529	27617	148938	2.22	4.60	36.80	2.1	21.5
YOSEMITE	227	9.21	9697	15018	135533	6.22	7.80	21.30	3.5	27.7
YUBA	189	9.73	5843	8430	171703	5.22	15.02	28.60	1.0	32.9

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Differential Funding Study
Footnotes For Student Services

(1) Stu Ser Exp Per ADA: Expenditures for admissions and records, counseling and guidance, and other student services (activity codes 6200-6499) per 1982-83 total ADA.

(2) % of Budget: Percent column 1 represents of total operating expenditures (excluding capital outlay) per ADA (activity codes 0100-6799).

(3) 1982-83 ADA: Total annual ADA reported by district in 1982-83 (includes apprenticeship and nonresident ADA).

(4) Fall 82 Enroll: Fall 1982 headcount enrollment.

(5) MAV Per ADA: Modified Assessed Valuation per unit of ADA for the 1977-78 fiscal year (the year before Proposition 13).

(6) % EOPS Recips: EOPS recipients in 1982-83 as a percent of headcount student enrollment.

(7) % Aid Recips: Financial aid recipients in 1982-83 as a percent of headcount student enrollment, as reported by districts in financial aid survey.

(8) % Minor Enroll: Minority student enrollment as a percent of total enrollment for the fall 1982 term.

(9) % Non Credit: Annual Noncredit ADA reported by the district for the 1982-83 year as a percent of total ADA.

(10) % Full Time: Full time enrollment (12 units or more) as a percent of total enrollment for the fall 1982 term.

CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

PLANT MAINTENANCE EXPENDITURES PER ADA
(ACTIVITIES 6500-6599)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	MAINT PER ADA	% OF BUDGET	ASF (1,000)	1982-83 ADA	MAINT FTE	MAV PER ADA	ADA / MNT FTE	ASF / MNT FTE	% ASF LAB	ASF / ADA	MNT SUP PER ASF
ALLAN HANCOCK	193	11.28	235.1	6929	38.8	73372	178.6	6059.3	48.5	33.9	5.69
ANTELOPE VALLEY	269	14.72	189.2	3698	26.5	128790	139.5	7139.6	53.8	51.2	5.26
BARSTOW	326	12.22	83.9	1017	9.0	129165	113.0	9322.2	51.2	82.5	3.95
BUTTE	245	13.53	218.5	6150	56.9	145044	108.1	3840.1	52.4	35.5	6.90
CABRILLO	206	10.24	257.9	6823	42.4	130596	160.9	6082.5	46.5	37.8	5.45
CERRITOS	220	12.34	523.8	14292	83.7	88306	170.8	6258.1	48.2	36.6	6.00
CHAFFEY	113	5.07	371.8	7709	63.4	151406	121.6	5864.4	43.7	48.2	2.34
CITRUS	266	14.32	352.8	6024	56.5	89010	106.6	6244.2	50.2	58.6	4.54
COACHELLA VALLEY	450	17.10	216.9	3830	26.8	195475	142.9	8093.3	49.6	56.6	7.95
COAST	176	9.03	1097.2	32273	204.0	90583	158.2	5378.4	47.4	34.0	5.18
COMPTON	323	13.17	232.0	3129	39.0	170271	80.2	5948.7	48.6	74.1	4.36
CONTRA COSTA	273	13.27	838.4	19475	108.3	184737	179.8	7741.5	46.1	43.1	6.34
EL CAMINO	279	13.19	811.4	15093	125.0	168889	120.7	6491.2	46.6	53.8	5.19
FOOTHILL-DEANZA	198	10.87	813.9	23192	99.5	90309	233.1	8179.9	44.3	35.1	5.64
FREMONT NEWARK	249	11.93	213.9	4764	40.0	156030	119.1	5347.5	42.3	44.9	5.55
GAVILAN	297	12.95	169.8	2299	26.7	193051	86.1	6359.6	50.7	73.9	4.02
GLENDALE	150	8.73	225.3	8778	43.3	95806	202.7	5203.2	49.1	25.7	5.84
GROSSMONT	248	12.54	397.9	10773	58.0	111903	185.7	6860.3	41.6	36.9	6.71
HARTNELL	252	13.08	299.2	4572	35.9	134893	127.4	8334.3	51.8	65.4	3.85
IMPERIAL	303	12.01	147.5	3018	44.0	123619	68.6	3352.3	43.4	48.9	6.20
KERN	315	13.27	655.6	10334	87.5	198981	118.1	7492.6	45.5	63.4	4.97
LAKE TAHOE	266	8.01	28.6	538	2.0	310128	269.0	14300.0	17.1	53.2	5.00
LASSEN	329	16.28	100.0	2187	15.0	47439	145.8	6666.7	45.8	45.7	7.20
LONG BEACH	255	12.25	616.6	15744	98.4	107696	160.0	6266.3	50.0	39.2	6.51
LOS ANGELES	345	12.67	3341.0	72391	919.6	234637	78.7	3633.1	45.1	46.2	7.48
LOS RIOS	258	13.24	1090.9	28250	206.0	105777	137.1	5295.6	48.1	38.6	6.68
MARIN	283	12.32	410.9	7389	54.6	190154	135.3	7525.6	42.4	55.6	5.09
MENDOCINO	219	7.89	77.9	1371	6.0	278364	228.5	12983.3	36.1	56.8	3.85
MERCED	218	12.42	281.3	5919	55.2	92327	107.2	5096.0	55.4	47.5	4.59
MIRA COSTA	287	13.15	185.4	4450	29.3	219667	153.2	6327.6	47.4	41.3	6.95
MONTEREY PEN.	230	12.84	259.1	5300	113.2	120911	46.8	2288.[illegible]	46.5	48.9	4.70
MT SAN ANTONIO	304	15.54	662.6	14401	113.2	130106	127.2	5853.[illegible]	46.4	46.0	6.61
MT SAN JACINTO	308	14.00	134.7	1892	17.8	399170	106.3	7567.4	51.9	71.2	4.33
NAPA VALLEY	228	11.52	214.1	4769	27.3	102148	174.7	7842.5	40.0	44.9	5.08
NORTH ORANGE	241	13.59	1001.2	27663	149.5	109562	185.0	6697.0	49.3	36.2	6.66
PALOMAR	210	11.08	406.8	11051	32.5	141041	340.0	12516.9	50.1	36.8	5.70
PALO VERDE	213	8.18	19.3	355	2.1	161491	169.0	9190.5	28.5	54.4	3.92
PASADENA	301	14.46	566.7	14752	128.8	88586	114.5	4399.8	45.9	38.4	7.84
PERALTA	218	10.50	1006.3	20296	121.6	117693	166.9	8275.5	48.8	49.6	4.40
RANCHO SANTIAGO	165	9.38	361.3	16225	92.7	147107	175.0	3897.5	43.6	22.3	7.41
REDWOODS	172	8.04	289.7	5065	59.0	116192	85.8	4910.2	54.2	57.2	3.01
RIO HONDO	248	11.53	349.2	8147	46.8	119528	174.1	7461.5	48.0	42.9	5.79
RIVERSIDE	250	14.07	335.6	8759	67.4	92646	130.0	4979.2	49.2	38.3	6.52
SADDLEBACK	245	11.40	382.2	13[illegible]	80.4	246117	168.4	4753.7	42.0	28.2	8.68
SAN BERNARDINO	282	12.95	548.0	11298	95.0	104636	118.9	5768.4	50.8	48.5	5.81
SAN DIEGO	180	9.77	980.9	35192	225.3	95136	156.2	4353.8	47.0	27.9	6.46
SAN FRANCISCO	252	13.20	786.8	34615	163.5	127998	211.7	4812.2	43.1	22.7	11.09
SANJOAQUIN DELTA	311	15.58	510.3	10705	100.0	144375	107.0	5103.0	50.0	47.7	6.52
SAN JOSE	227	10.31	495.5	11851	69.4	189600	170.8	7139.8	51.9	41.8	5.43
SAN LUIS OBISPO	353	18.68	191.1	3803	33.5	259009	113.5	5704.5	55.0	50.2	7.06
SAN MATEO	215	9.69	738.5	16932	99.3	220551	170.5	7437.1	44.3	43.6	4.93

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PLANT MAINTENANCE EXPENDITURES PER ADA
(ACTIVITIES 6500-6599)
FY 1982-83

DISTRICT NAME	MAINT PER ADA	% OF BUDGET	ASF (1,000)	1982-83 ADA	MAINT FTE	MAV PER ADA	ADA / MNT FTE	ASF / MNT FTE	% ASF LAB	ASF / ADA	MNT SUP PER ASF
SANTA BARBARA	190	11.45	327.9	8913	41.9	106668	212.7	7825.8	49.8	36.8	5.16
SANTA CLARITA	591	25.54	172.4	1951	24.0	173936	81.3	7183.3	54.7	88.4	6.69
SANTA MONICA	240	13.95	395.0	11546	58.8	62470	196.4	6717.7	47.5	34.2	7.02
SEQUOIAS	274	11.82	232.5	5113	51.3	168939	99.7	4532.2	48.4	45.5	6.03
SHASTA	312	15.54	298.8	5478	50.5	131571	108.5	5916.8	50.9	54.5	5.72
SIERRA	122	6.46	267.2	5836	29.0	148009	201.2	9213.8	44.0	45.8	2.66
SISKIYOUS	324	13.69	132.0	1715	16.8	140427	102.1	7857.1	39.6	77.0	4.21
SOLANO	209	11.40	268.9	5489	30.5	126969	180.0	8816.4	48.0	49.0	4.27
SONOMA	158	9.02	472.9	13305	47.0	116073	283.1	10061.7	48.9	35.5	4.45
SOUTH COUNTY	220	10.97	436.3	11503	62.1	200364	185.2	7025.8	44.3	37.9	5.80
SOUTHWESTERN	276	14.35	329.1	7918	58.9	171598	134.4	5587.4	47.9	41.6	6.64
STATE CENTER	220	11.57	722.3	12172	103.7	97313	117.4	6965.3	52.8	59.3	3.71
VENTURA	241	11.99	659.4	17597	138.3	135054	127.2	4767.9	47.3	37.5	6.43
VICTOR VALLEY	365	15.40	145.4	2438	19.5	128105	125.0	7456.4	45.9	59.6	6.12
WEST HILLS	634	17.69	126.4	1313	19.5	399532	67.3	6482.1	47.8	96.3	6.59
WEST KERN	1195	20.35	90.1	652	15.9	1097834	41.0	5666.7	47.7	138.2	8.65
WEST VALLEY	224	11.81	510.4	13529	90.2	148933	150.0	5658.5	45.9	37.7	5.94
YOSEMITE	225	9.13	516.6	9697	105.3	135533	92.1	4906.0	42.6	53.3	4.22
YUBA	203	10.45	273.8	5843	60.8	171703	96.1	4503.3	43.7	46.9	4.33

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Differential Funding Study
Footnotes For Plant Maintenance

(1) Maint Per ADA: Expenditures for plant maintenance and operations (activity code 6500-6599) per 1982-83 total ADA.

(2) % of Budget: Percent column 1 represents of total operating expenditures (excluding capital outlay) per ADA (activity codes 0100-6799).

(3) ASF (1,000): Assignable square footage (in thousands) reported in the facilities inventory for the 1982-83 year.

(4) 1982-83 ADA: Total annual ADA reported by district in 1982-83 (includes apprenticeship and nonresident ADA).

(5) Maint FTE: Plant maintenance and service staff FTE as reported for EEO-6 purposes from fall 1982 staff data submission.

(6) MAV Per ADA: Modified Assessed Valuation per unit of ADA for the 1977-78 fiscal year (the year before Proposition 13).

(7) ADA / Mnt FTE: Column 4 divided by column 5.

(8) ASF / Mnt FTE: Total assignable square footage reported in 1982 facilities inventory divided by column 5.

(9) % ASF Lab: Percentage of assignable square footage (ASF) reported in laboratory and special facilities in the 1982 facilities inventory.

(10) ASF / ADA: Total assignable square footage reported in 1982 facilities inventory divided by column 4.

(11) Mnt Sup Per ASF: Expenditures for plant maintenance and operations (activity code 6500-6599) divided by total assignable square footage.

CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

GENERAL SUPPORT EXPENDITURES PER ADA
(ACTIVITIES 6600-6799)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	GEN SUP PER ADA	% OF BUDGET	1982-83 ADA	FALL 82 ENROLL	MAV PER ADA	ADA / STF FTE	FAC / ADM FTE	% ASF LAB	AVE COL SIZE	GEN SUP PER FAC
ALLAN HANCOCK	187	10.93	6929	10321	73372	19.74	10.19	48.5	6929	6621
ANTELOPE VALLEY	148	8.10	3698	7290	128790	16.47	5.96	53.8	3698	4457
BARSTOW	427	16.01	1017	1705	129165	12.76	5.19	51.2	1017	11458
BUTTE	201	11.10	6150	8994	145044	16.97	3.65	52.4	6150	6751
CABRILLO	247	12.28	6823	11458	130596	16.15	16.19	46.5	6823	6507
CERRITOS	190	10.66	14292	24170	88306	21.51	12.97	48.2	14292	7752
CHAFFEY	361	16.19	7709	13850	151406	14.33	31.83	43.7	7709	9714
CITRUS	219	11.79	6024	10052	89010	16.45	8.30	50.2	6024	7391
COACHELLA VALLEY	330	12.54	3830	7798	195475	12.53	6.98	49.6	3830	7243
COAST	216	11.08	32273	62673	90583	18.10	6.09	47.4	10758	7472
COMPTON	479	19.54	3129	4564	120271	14.55	10.79	48.6	3129	16543
CONTRA COSTA	206	10.91	19475	33975	184737	19.78	12.91	46.1	6492	6904
EL CAMINO	207	9.79	15093	29597	168889	18.47	13.43	46.6	15093	7051
FOOTHILL-DEANZA	177	9.71	23192	37047	90309	19.16	8.99	44.3	11596	6091
FREMONT NEWARK	307	14.71	4764	8292	156030	14.30	13.01	42.3	4764	8027
GAVILAN	262	11.42	2299	3182	193051	12.27	10.14	50.7	2299	6597
GLENDALE	159	9.25	8778	16357	95806	19.42	12.17	49.1	8778	4944
GROSSMONT	265	13.40	10773	18193	111903	17.13	10.43	41.6	5387	8555
HARTNELL	207	10.74	4572	7052	184893	16.70	4.16	51.8	4572	6637
IMPERIAL	225	8.92	3018	4678	123619	10.79	9.31	43.4	3018	6079
KERN	282	11.88	10334	18474	198981	13.46	12.90	45.5	3445	7060
LAKE TAHOE	1010	30.41	538	1491	310128	9.68	4.51	17.1	538	17196
LASSEN	280	13.85	2187	2605	47439	16.12	6.32	45.8	2187	8811
LONG BEACH	232	11.15	15744	25303	107696	17.51	15.96	50.0	15744	6538
LOS ANGELES	400	14.70	72391	135529	234637	13.71	13.39	45.1	8043	10941
LOS RIOS	251	12.88	28250	46482	105777	17.85	10.65	48.1	9417	7869
MARIN	311	13.53	7389	10569	190154	15.01	10.62	42.4	3695	8320
MENDOCINO	606	21.83	1371	3564	278364	10.83	3.56	36.1	1371	12982
MERCED	198	11.28	5919	8368	92327	15.86	7.13	55.4	5919	7615
MIRA COSTA	264	12.10	4490	8515	219667	14.29	10.11	47.4	4490	7814
MONTEREY PEN.	147	8.21	5300	8405	120911	7.32	7.26	46.5	5300	4812
MT SAN ANTONIO	205	10.48	14401	28453	130106	19.89	9.14	46.4	14401	7427
MT SAN JACINTO	307	13.95	1892	3678	399170	16.45	7.86	51.9	1892	10561
NAPA VALLEY	249	12.58	4769	8973	102148	13.93	9.86	40.0	4769	6270
NORTH ORANGE	240	13.53	27663	66611	109562	21.28	9.81	49.3	13832	8673
PALOMAR	124	6.54	11051	18881	141041	18.35	9.68	50.1	11051	4163
PALO VERDE	634	24.34	355	763	161491	9.49	5.35	28.5	355	10517
PASADENA	259	12.45	14752	22588	88586	17.16	8.95	45.9	14752	9030
PERALTA	372	17.91	20296	38993	117693	15.99	9.20	48.8	4059	10390
RANCHO SANTIAGO	213	12.10	16225	32808	147107	13.37	11.77	43.6	16225	6245
REDWOODS	358	16.74	5065	8026	116192	15.02	11.74	54.2	5065	11030
RIO HONDO	280	13.02	8147	11850	119528	17.39	7.39	48.0	8147	9353
RIVERSIDE	183	10.30	8759	15696	92646	18.72	5.83	49.2	8759	6160
SADDLEBACK	369	17.17	13537	24560	246117	17.22	8.90	42.0	6769	11690
SAN BERNARDINO	255	11.71	11298	19720	104636	17.04	10.66	50.8	5649	7952
SAN DIEGO	384	20.85	35192	62239	95136	16.71	14.95	47.0	11731	10538
SAN FRANCISCO	263	13.78	34615	70104	127998	18.76	16.66	43.1	34615	7549
SANJOAQUIN DELTA	215	16.77	10705	17173	144375	19.28	6.59	50.0	10705	8121
SAN JOSE	327	14.85	11851	21787	189600	16.10	9.31	51.9	5926	9505
SAN LUIS OBISPO	246	12.95	3803	5893	259009	16.72	9.43	55.0	3803	8199
SAN MATEO	182	8.21	16932	30518	220551	16.44	10.47	44.3	5644	5163

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CHANCELLORS OFFICE
DIFFERENTIAL FUNDING STUDY

GENERAL SUPPORT EXPENDITURES PER ADA
(ACTIVITIES 6600-6799)
FY 1982-83

--- DRAFT FOR DISCUSSION ONLY ---

DISTRICT NAME	GEN SUP PER ADA	% OF BUDGET	1982-83 ADA	FALL 82 ENROLL	MAV PER ADA	ADA / STF FTE	FAC / ADM FTE	% ASF LAB	AVE COL SIZE	GEN SUP PER FAC
SANTA BARBARA	221	13.31	8913	18752	106668	19.08	9.94	49.8	8913	7397
SANTA CLARITA	321	13.87	1951	3487	173936	13.65	6.44	54.7	1951	10020
SANTA MONICA	230	13.36	11546	23001	62470	19.88	9.18	47.5	11546	7815
SEQUOIAS	249	10.74	5113	7326	168939	16.46	15.25	48.4	5113	7077
SHASTA	171	8.52	5478	8948	131571	17.06	16.75	50.9	5478	5592
SIERRA	416	22.01	5836	10006	148009	18.33	9.14	44.0	5836	13977
SISKIYOUS	221	9.34	1715	2862	140427	14.33	9.97	39.6	1715	6338
SOLANO	270	14.72	5489	9799	126969	17.83	9.47	48.0	5489	8197
SONOMA	166	9.47	13305	22313	116073	20.32	8.49	48.9	13305	5728
SOUTH COUNTY	178	8.88	11503	21728	200364	18.55	7.49	44.3	11503	5758
SOUTHWESTERN	230	11.96	7918	12333	171598	17.30	8.89	47.9	7918	7880
STATE CENTER	298	15.67	12172	18179	97313	16.56	5.27	52.8	6086	9886
VENTURA	216	10.75	17597	30729	135054	16.76	9.06	47.3	5866	6455
VICTOR VALLEY	197	8.31	2438	5012	128105	14.91	6.54	45.9	2438	4993
WEST HILLS	412	11.50	1313	2152	399532	10.53	4.74	47.8	1313	8782
WEST KERN	837	14.26	652	959	1097834	6.66	4.32	47.7	652	15772
WEST VALLEY	251	13.24	13529	27617	148938	17.70	23.60	45.9	6765	7994
YOSEMITE	355	14.40	9697	15018	135533	15.36	5.15	42.6	4849	13154
YUBA	243	12.51	5843	8430	171703	16.70	8.10	43.7	5843	8352

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Differential Funding Study
Footnotes For General Support

(1) Gen Sup Per ADA: Expenditures for administration and general support (activity codes 6600-6799) per 1982-83 total ADA.

(2) % of Budget: Percent column 1 represents of total operating expenditures (excluding capital outlay) per ADA (activity codes 0100-6799).

(3) 1982-83 ADA: Total annual ADA reported by district in 1982-83 (includes apprenticeship and nonresident ADA).

(4) Fall 82 Enroll: Fall 1982 headcount enrollment.

(5) MAV Per ADA: Modified Assessed Valuation per unit of ADA for the 1977-78 fiscal year (the year before Proposition 13).

(6) ADA / Stf FTE: Total annual attendance ADA for 1982-83 divided by total staff FTE as reported for fall 1982 in the staff data system.

(7) Fac / adm FTE: Total faculty FTE divided by executive/management FTE as reported for EEO-6 purposes in the fall 1982 staff data system.

(8) % ASF Lab: Percentage of assingnable square footage (ASF) reported in laboratory and special facilities in the 1982 facilities inventory.

(9) Ave Col Size: Column 3 divided by the number of colleges in the district.

(10) Gen Sup Per Fac: Expenditures for administration and general support (activity codes 6600-6799) per FTE faculty.

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APPENDIX F

ANALYSIS OF 1982-83 COMMUNITY COLLEGE EXPENDITURES FOR STUDENT SERVICES, GENERAL SUPPORT, PLANT MAINTENANCE AND OPERATION, AND INSTRUCTION

Differential Funding Study

ANALYSIS OF 1982-83 COMMUNITY COLLEGE EXPENDITURES FOR STUDENT SERVICES, GENERAL SUPPORT, PLANT MAINTENANCE AND OPERATION, AND INSTRUCTION

Augenblick, Van de Water & Associates

August 10, 1984

California Community Colleges
Differential Funding Study

ANALYSIS OF 1982-83 COMMUNITY COLLEGE EXPENDITURES FOR STUDENT SERVICES, GENERAL SUPPORT, PLANT MAINTENANCE AND OPERATION, AND INSTRUCTION

Augenblick Van de Water & Associates
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Introduction

1. The purpose of this analysis is to gain a better understanding of how community colleges spent funds in 1982-83. This analysis should help policymakers determine if differential funding is appropriate. It should provide information about how differentials would apply to key areas of expenditure, what workload measures might be used and alternative approaches to differentiating support.

2. Basically, we view expenditures as a function of four types of variables: (1) those related to "need," the rational basis for spending; (2) those that reflect prior spending behavior, the historical basis for spending; (3) those related to district characteristics such as size, the technological basis of spending; and (4) those that reflect particular choices of districts, the ideosyncratic basis of spending. Because there are 70 community college districts, it would be difficult to identify reasons for spending that apply universally; rather, this analysis can best be used to identify: (1) spending patterns that apply to a majority of districts and (2) districts to which the pattern does not apply.

3. Because the data are imperfect and because 1982-83 may not have been a typical year, this analysis should be used cautiously; it should not be used to determine future spending or the precise levels of parameters to be used in a differential funding formula.

A. Expenditures for Student Services

1. Per ADA expenditures for student services range from $114 to $605. The majority of districts spend between $150 and $250 per ADA. Districts are distributed as follows in terms of their per ADA student services expenditures:

Number of Districts	Range of Expenditures for Student Services
18	less than $150
27	$150 - $199
15	$200 - $249
4	$250 - $299
6	more than $299

2. There is a high correlation between per ADA and per enrollment expenditures for student services: r = .932. It appears that enrollment and ADA can be used interchangeably.

3. Community college districts vary in the percentage of total expenditures they allocate for student services. The range is from 5.3 percent to 14.6 percent. Districts are distributed as follows in terms of their percentage expenditures for student services:

Number of Districts	Percentage of Total Expenditures for Student Services
15	less than 7.50%
16	7.50% - 8.49%
12	8.50% - 9.49%
13	9.50% - 10.49%
9	10.50% - 11.49%
5	more than 11.49%

4. There is a moderate correlation between per student expenditures for student services and the percentage of total expenditures spent on student services: r = .674.

5. Smaller community college districts tend to spend higher amounts on student services, not only in terms of expenditures per student but in terms of percentage of total expenditures. Among the 12 districts with less than 3,000 ADA, eight (67 percent) spend 10 percent or more of total expenditures on student services. In contrast, of the 58 districts with more than 3,000 ADA, only 12 (21 percent) spend more than 10 percent of total expenditures on student services.

6. There is a strong correlation between the wealth of community college districts and the per student amounts they spend for student services: r = .750. However, the correlation between the wealth of the districts and the percentage of total expenditures spent on student services is low: r = .124.

7. We hypothesized that spending for student services would be related to some indicator of the need of districts to provide such services and we assumed that the indicator should reflect the characteristics of students. We felt that we should investigate the influence of the percentages of EOP students, minority students, financial aid recipients, full-time students and non-credit students. The percentages of EOPS students and financial aid recipients are somewhat related to per student amounts spent on student services: r = .471 and r = .483, respectively. The percentage of minority students is unrelated to amounts spent on student services: r = -.013. The percentage of full-time students is positively, although very weakly, related to amounts spent for student services: r = .121 (we expected a negative correlation assuming that the higher the percentage of full-time students, the lower the need for student services). The percentage of non-credit students is negatively related to

expenditures for student services as expected: r = -.185. We created an index using all of these characteristics to reflect the expected needs of districts to provide student services. For each factor a score was given ranging from -1 to 2, as follows:

Type of Student	Score			
	-1	0	1	2
EOP students	< 2%(15)	2- 4%(25)	4- 5% (9)	> 5%(21)
fin. aid recipients	< 5% (8)	5-10%(30)	10-20%(23)	>20% (9)
minority students	<15% (6)	15-40%(42)	40-50%(12)	>50%(10)
full-time students	<20%(10)	20-25%(24)	25-30%(23)	>30%(13)
non-credit students	>15%(10)	5-15%(15)	1- 5%(21)	< 1%(24)

NOTE: Figures in parentheses indicate the number of districts in each category.

Scores for each type of student were summed; the resulting total index ranged from -4 to +10. Districts were placed in high, medium and low "need" groups based on the following indices:

Number of Districts	Need Index (Group)
21	+5 to +10 (high need)
33	+1 to +4 (medium need)
16	-4 to 0 (low need)

8. Among the 21 high need districts, the percentage of funds spent on student services is related to the wealth of districts as shown in the following table:

	Percentage of Funds Spent on Student Services				
Wealth	Very Low	Low	Medium	High	Very High
Very Low	1	0	1	1	0
Low	1	0	0	1	2
Medium	1	0	0	0	1
High	2	0	2	2	1
Very High	0	1	0	1	3

Twelve of the 21 high need districts spend high or very high amounts on student services. Half of the remaining districts which do not appear to spend in accordance with their needs, are relatively wealthy.

9. Among the 33 districts with moderate needs, the relationship between the percentage of funds spent on student services and wealth is shown on the following table:

	Percentage of Funds Spent on Student Services				
Wealth	Very Low	Low	Medium	High	Very High
Very Low	0	2	2	0	1
Low	3	1	0	3	1
Medium	3	2	3	2	2
High	1	1	2	1	0
Very High	0	0	1	1	1

Most districts with moderate needs spend moderately on student services; only about one third of the districts with moderate needs spend very low or very high amounts on student services.

10. Among the 16 districts with low needs, the relationship between the percentage of funds spent on student services and wealth is shown on the following table:

	Percentage of Funds Spent on Student Services				
Wealth	Very Low	Low	Medium	High	Very High
Very Low	1	1	1	1	1
Low	1	1	0	0	0
Medium	1	2	0	0	0
High	0	0	3	0	0
Very High	1	1	0	0	1

Nine of the 16 low need districts spend low or very low amounts on student services. However, of the 12 districts that spend medium or high amounts on student services, even when their needs are relatively low, seven districts have moderate or high wealth; this is probably a function of district size.

11. It appears that 49 districts (70 percent) are spending for student services in relation to their relative needs. For the remaining 21 districts, there does not appear to be a strong relationship between spending for student services and wealth. Of the 12 low or very low wealth districts, four spend very low amounts for student services and four spend high or very high amounts. Of the 11 high or very high wealth districts, three spend low or very low amounts for student services and two spend high or very high amounts.

12. A few districts behave in unexpected ways and could be investigated further. Three districts with low needs and low wealth spend high or very high amounts on student services. One district with high need and high wealth spends a very low amount on student services.

13. Regression was used to investigate which variables do the best job of predicting spending for student services. We could find no equation that would account for a large proportion of the variation in

the percentage of all funds spent on student services. District wealth, size, percentage of EOP students and percentage of financial aid recipients are most strongly correlated with per student spending for student services. The most important variable among these is wealth, which alone accounts for 56 percent of the variation in student services spending. However, because wealth is also coincidentally related to need, the situation is not as bad as it would appear. The proportion of EOP students contributes an additional 17 percent to the explanatory power of the regression equation.

14. As a result of this analysis three alternative funding approaches should be investigated:

    a. allocating aid on the basis of the number of EOP students (a flat amount per EOP student, the simplest approach)

    b. allocating aid based on the percentage of EOP students (an amount per ADA or enrolled student that varies as the percentage of EOP students varies).

    c. allocating aid based on a more comprehensive measure of need, either using a combination of EOP students and financial aid applicants or some other combination of indicators, such as was used in creating the need index (a more complicated approach but one that would consider many of the factors thought to be related to expenditures for student services).

B. Expenditures for General Support

1. Per ADA expenditures for general support range from $124 to $1,010. Half of the districts spend between $200 and $300 per ADA. Districts are distributed as follows in terms of their per ADA general support expenditures:

Number of Districts	Range of Expenditures for General Support
14	less than $200
22	$200 - $249
13	$250 - $299
6	$300 - $349
5	$350 - $399
5	$400 - $599
4	more than $599

2. There is a high correlation between per ADA and per FTE faculty expenditures for general support: r = .858. Community colleges spend between $4,162 and $17,196 per faculty member for general support. In five districts, spending for general support is less than $5,000 per faculty member; in 26 districts, spending is between $5,000 and $7,500; in 24 districts, spending is between $7,500 and $10,000; and in 15 districts, spending is in excess of $10,000 per faculty member.

3. Community college districts vary in the percentage of total expenditures they allocate for general support. The range is from 6.5 percent to 30.4 percent. Districts are distributed as follows in terms of their percentage expenditures for general support:

Number of Districts	Percentage of Total Expenditures for General Support
13	less than 10.00%
19	10.00% - 11.99%
20	12.00% - 13.99%
7	14.00% - 15.99%
5	16.00% - 17.99%
6	more than 17.99%

4. There is a strong correlation between per student expenditures for general support and the percentage of total expenditures spent on general support: r = .834.

5. Smaller community college districts tend to spend higher amounts on general support, not only in terms of expenditures per student and percentage of total expenditures but also in terms of expenditures per faculty member. Among the 12 districts with less than 3,000 ADA, eight (67 percent) spend more than $300 per ADA, eight (67 percent) allocate more than 13 percent of expenditures, and seven (58 percent) spend more than $10,000 per FTE faculty member on general support. In contrast, of the 58 districts with more than 3,000 ADA, only 13 (22 percent) spend more than $300 per ADA, 20 (34 percent) allocate more than 13 percent of expenditures, and eight (14 percent) spend more than $10,000 per FTE faculty member for general support.

6. There is a moderate correlation between the wealth of community college districts and the per student amounts they spend on general support: r = .589. However, the correlation between the wealth of districts and the percentage of total expenditures spent on general support is low: r = .151.

7. Using regression analysis, a number of factors thought to be related to expenditures for general support were investigated. The most important predictor of general support expenditures per student is the ratio of ADA students to all FTE faculty, which explains 37 percent of its variation. The percentage of all assignable square feet in laboratory adds an additional 14 percent to the explanatory power of the regression equation. Both the ratio of students to faculty and the percentage of assignable square feet in lab are negatively correlated with general support per faculty member at a moderate level: r = -.360 and r = -.344, respectively.

8. As a result of this analysis, three alternative funding approaches should be investigated:

   a. allocating aid on the basis of the number of faculty members.

b. allocating aid on the basis of faculty members adjusted by the percentage of space used in lab.

c. allocating aid on a per student basis with adjustments for the ratio of students to faculty and the percentage of lab space.

C. Expenditures for Plant Maintenance and Operation (M&O)

1. Per ADA expenditures for plant M&O range from $113 to $1,195. The majority of districts spend between $200 and $300 per ADA. Districts are distributed as follows in terms of their per ADA plant M&O expenditures:

Number of Districts	Range of Expenditures for Plant M&O
11	less than $200
25	$200 - $249
16	$250 - $299
12	$300 - $349
6	more than $349

2. There is a relatively low correlation between per ADA and per assignable square foot expenditures for plant M&O: r = .392. This results, in part, because plant M&O expenditures per assignable square foot are fairly constant: 38 districts spend between $5 and $7 per square foot. The correlation between plant expenditures per student and assignable square feet per student is high: r = .801. This is due to the influence of district size, in terms of ADA, on expenditures for plant M&O: as size increases, plant M&O expenditures per assignable square foot increase (r = .349) while plant M&O expenditures per ADA decrease (r = -.184) because the number of assignable square feet per student decreases (r = -.420).

3. Community college districts vary in the percentage of total expenditures they allocate for plant M&O. The range is from 5.1 percent to 25.5 percent. Districts are distributed as follows in terms of their percentage expenditure for plant M&O:

Number of Districts	Percentage of Total Expenditures for Plant M&O
6	less than 8.50%
7	8.50% - 9.99%
11	10.00% - 11.49%
18	11.50% - 12.99%
18	13.00% - 14.49%
10	more than 14.49%

4. There is a high correlation between per student expenditures for plant M&O and the percentage of total expenditures spent on plant M&O: r = .723. There is a moderate correlation between expenditures for plant M&O per assignable square foot and the percentage of total expenditures spent on plant M&O: r = .515.

5. Smaller community college districts tend to spend higher amounts per student on plant M&O although they do not necessarily spend higher amounts per assignable square foot. Among the 12 districts with less than 3,000 ADA, eight (67 percent) spend more than $300 per student but only five (42 percent) spend more than $6 per assignable square foot. In contrast, of the 58 districts with more than 3,000 ADA, only 10 (17 percent) spend more than $300 per student while 24 (41 percent) spend more than $6 per assignable square foot.

6. There is a strong correlation between the wealth of community college districts and the per student amounts they spend on plant M&O: r = .820. However, the correlation between wealth and plant M&O expenditures per assignable square foot is low: r = .201.

7. Using regression analysis, a number of factors thought to be related to expenditures for plant M&O were investigated. The strongest predictor of plant M&O expenditures per student is community college district wealth; it accounts for 67 percent of the variation in expenditures. Assignable square feet per ADA explains an additional 11 percent of the variation in plant M&O expenditures; the correlation between assignable square feet per ADA and plant M&O expenditures is .801. Both the ratio of ADA to service employees and the average size of each college in a community college district are negatively associated with plant M&O expenditures per ADA (r = -.454 and r = -.351, respectively). The percentage of all square footage in lab is associated only minimally with plant M&O expenditures (r = .108). It is possible to explain 22 percent of the variation in plant M&O expenditures per assignable square foot by the ratio of service employees to assignable square feet and the ratio of ADA to service employees. Thus, a combination of assignable square feet, number of service employees and ADA is important in explaining plant M&O expenditures, either in terms of amounts spent per student or amounts spent per square foot.

8. As a result of this analysis, three alternative funding approaches should be investigated:

   a. allocating aid on the basis of assignable square feet or the number of ADA per square foot.

   b. allocating aid on the basis of service employees or the number of service employees per square foot.

   c. allocating aid on the basis of a comprehensive measure of plant M&O needs (which would need to be informed by further study of factors that might better explain expenditures, such as age of facilities or climate).

D. Expenditures for Instruction

1. Per ADA expenditures for instruction range from $1,107 to $3,234. The majority of districts spend between $1,200 and $1,500 per ADA.

Districts are distributed as follows in terms of their ADA per instructional expenditures:

Number of Districts	Range of Expenditures for Instruction
12	less than $1,200
16	$1,200 - $1,299
14	$1,300 - $1,399
11	$1,400 - $1,499
6	$1,500 - $1,599
8	$1,600 - $1,699
3	more than $1,699

2. Community college districts vary somewhat in the percentage of total expenditures spent on instruction. The range is from 52.0 percent to 74.4 percent. Nine districts spend less than 60 percent of their budget on instruction; 19 districts spend between 60 and 70 percent of all expenditures on instruction; 35 districts spend between 65 and 70 percent of their budgets on instruction; seven districts spend more than 70 percent of their budgets on instruction.

3. There is a negative relationship between instructional support per student and the percentage of all expenditures spent on instruction ($r = -.260$); as instructional expenditures increase they become a lower proportion of all expenditures.

4. Smaller community colleges tend to spend higher amounts per student on instruction. Among the 12 community college districts with less than 3,000 ADA, nine (75 percent) had instructional expenditures in excess of $1,490 per student; of the 58 districts with more than 3,000 ADA, nine (15 percent) spent more than $1,490 on instruction.

5. The best predictor of instructional expenditures per student is the ratio of students to FTE faculty: $r = -.614$. While a number of other variables were investigated (such as the percentage of all salaries paid to full-time faculty), none of them were even moderately related to instructional expenditures.

6. We expected that there would be a strong relationship between instructional expenditures and the proportion of students enrolled in low cost and high costs courses. It has proven almost impossible to investigate characteristics of courses at the four digit TOP code level. Variations in student/faculty ratios, percent of full-time faculty, and salary expenditures per student are greater within the same courses among community college districts than between courses. It would be difficult at this time to classify courses into any type of cost typology.

E. Relationships Between Expenditure Categories

1. Per student expenditures for student services, general support, plant M&O and instruction are moderately to strongly related among community college districts, as indicated in the following table of correlation coefficients:

	Expenditure Category			
	Student Services	General Support	Plant M&O	Instruction
Student Services	1.000	.574	.730	.786
General Support		1.000	.420	.609
Plant M&O			1.000	.766

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